Clinical Lecture

ON THE

DIAGNOSTIC VALUE OF THE ILIO-FEMORAL TRIANGLE IN CASES OF INJURY OF THE HIP-JOINT,

MORE PARTICULARLY OF IMPACTED FRACTURE.

Delivered December 16th at Guy's Hospital,

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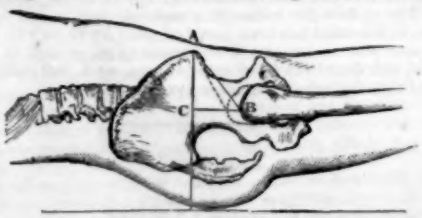
"THE interest that is attached to the subject of injuries of the hip-joint, the difficulty that occasionally attends their diagnosis, and the injury that is too often inflicted upon a patient in the attempt to make out a difficult case, are some of the reasons that have induced me to bring before your notice on the present occasion a means of diagnosis in these cases that I have long employed and taught, although I may not have formulated it before the present year.

I have described the means in this paper as the ilio-femoral triangle, and I have done so because the triangle is formed between the ilium and the femur. The lines which form it are readily made out, and any shortening of the one which I have called the base, and to which I am about to draw your especial attention, can be easily detected.

The triangle is formed as follows, and is a right-angled triangle. It is figured below. One side of the triangle is represented by a line A B, drawn from the anterior superior spinous process of the ilium, to the top of the trochanter



major. The second, A C, is drawn from the anterior superior spinous process of the ilium directly downwards to the horizontal plane of the recumbent body. And the third, C B—which is the base of the triangle—is drawn at right angles to A C, and falls upon the line A B, where it touches the great trochanter. It is to this line my observations refer.

The line A B, it will be seen, corresponds in part to Nélaton's well-known line, which is drawn from the anterior superior spinous process of the ilium to the most prominent part of the tuberosity of the ischium. This line, in the normal position of the head of the femur, touches the upper border of the major trochanter in every position of the limb, and I believe that if this line is to be considered to be the test-line for dislocation of the head of the femur backwards—which I take it to be—I must claim the base of the triangle I have described (C B) to be the test-line for fracture or shortening of the neck.

At any rate I can confidently assert, after repeated proofs, that whilst in a healthy subject these ilio-femoral triangles are exactly similar upon the two sides of the body, with equal sides and equal angles, I can with equal confidence assure you that in all cases of injury to the hip in which shortening of the neck of the thigh-bone exists, the amount of shortening can readily and accurately be made out on comparing the bases (C B) of the triangles of the two sides. That in impacted fracture of the neck of the thigh-bone, where on the sound side the base of the triangle will, in the adult, measure its average normal length of two and a half inches, on the affected or injured side it will measure from half an inch to more than one inch less. These measurements being taken with the patient in the horizontal position, the pelvis straight, and the two femora parallel.

I will now proceed to illustrate the practical bearing of these facts by the quotation of a few cases of impacted fracture of the neck of the thigh-bone, as it is in cases such as these that the value of the test-line I now submit to your notice is best illustrated.

CASE 1.—Mary C——, aged sixty, was admitted into Guy's Hospital, under my care, on May 5th, 1872, having had a severe fall upon her left hip. On admission her left lower extremity was everted, and three-quarters of an inch shorter than her right; this shortening being in the neck of the bone, as shown by the trochanter major being drawn up to that extent, as proved by the test-line. The head of the bone rotated smoothly in the acetabulum. An impacted fracture was diagnosed, and a long splint applied. The woman left the hospital in two months convalescent, and able to use her limb. The shortening, however, remained the same, and there was great thickening to be felt about the neck of the bone behind the trochanter.

CASE 2.—Ann F——, aged sixty-eight, a widow, was admitted on April 13th, 1872, having two days previously fallen upon her hip against a bedstead. On admission her right lower extremity was everted, and shorter than the left by three-quarters of an inch. The shortening was also found by the test-line to be in the neck of the femur; the head of the bone could be rotated in the acetabulum. A long splint was applied to keep the parts quiet, and in ten weeks the patient was convalescent. She left the hospital able to use her limb. The shortening, however, remained, and considerable thickening about the neck of the bone was to be felt.

CASE 3.—Charlotte H——, a servant, aged fifty-nine, was admitted on March 6th, 1873, for a severe injury to her right hip, which she received in a fall. On admission the limb was everted, and three-quarters of an inch shorter than the left, the trochanter being nearer by that extent to the crest of the ilium, as indicated by the test-line. A long splint was applied, and rest enforced, the woman leaving the hospital in two months able to use her limb. The shortening, however, still existed, with much thickening about the neck of the thigh-bone, and the trochanter major was clearly nearer the median line of the body on the affected than on the sound side.

CASE 4.—Margaret S——, aged seventy-eight, was admitted on June 2nd, 1873, having fallen heavily upon her left hip. The left lower extremity on examination was in a natural position, the foot being straight; it was nearly three-quarters of an inch shorter than the right, and this shortening was in the neck of the bone as indicated by the test-line. Pressure upon and behind the trochanter caused pain. A long splint was applied and kept on for two months, when it was removed, the patient being able to get about on crutches. The shortening of the limb remained; there was considerable thickening about the neck of the injured femur.

CASE 5.—W. D. G——, aged sixty-three, was admitted on April 5th, 1873, having been knocked down by a cab. The injury was in the right hip. On admission the limb was slightly everted and three-quarters of an inch shorter than the left, the trochanter major being drawn up nearer to the crest of the ilium, as shown by the test-line. Pressure behind the trochanter and upon it caused pain. A long splint was applied, and in two months the man left the hospital, the shortening being about an inch. There was great thickening about the neck of the bone.

CASE 6.—Patrick W——, aged sixty-four, was admitted on Jan. 11th, 1873, having fallen heavily off the kerbstone upon his right hip. On admission the right lower extremity was one inch shorter than the left, and the shortening was to the neck of the bone, the base of the ilio-femoral triangle on the injured side being one inch less than that on the sound one; the foot was slightly everted. Pressure caused pain behind the trochanter. An impacted fracture was diagnosed, and a long splint applied. The man left the hospital convalescent on March 7th with a good limb. A month later, however, he died of bronchitis and old age, and I was fortunate enough to get the preparation which I submit to your notice. It is an excellent one of cured impacted fracture.

These cases are only a few out of many that I could extract from my note-book to support the views I have brought before you; but I trust they are sufficient to justify the opinion I expressed at the beginning of this paper as to the value of the test-line I have described.

In practice the line is easily made out, and the test as to shortening of the neck of the femur readily applied, and with these facts before us the value of the means for diagnostic purposes can hardly be disputed.

In my own hands the test-line has helped me much in many difficult cases, and in the hands of my dressers it has been of no less value, for it has enabled them to diagnose with facility, and without dangerous manipulation, many cases of impacted fracture of the neck of the thigh-bone that would otherwise have been overlooked, and to a certainty would have been roughly and injuriously handled.

By means of this line I maintain the diagnosis of an impacted fracture of the neck of the thigh-bone can, as a rule, be made out with facility and certainty; and that in a large number of obscure cases of injury to the hip the doubts and difficulties that were formerly experienced may be exchanged for the confidence of accurate knowledge.

I do not mean, however, to say that by means of this test-line all obscure cases of injury to the hip-joint can be cleared up, for such an assertion would not be true; but I would wish you to believe what I have found to be the case—that by its use a large number of cases that would have been called obscure have ceased to be so.

It is true that there may be some shortening of this line in cases of fracture of the great trochanter, and it is likewise possible that there may be no shortening of the line in some examples of impacted fracture; but these cases are exceptional, and they in no way tend to diminish the diagnostic value of the means I have to-day brought before your notice in the majority of cases of fracture of the neck of the thigh-bone, and in all cases in which shortening of the neck of the femur may be found. With these remarks I respectfully commend this test-line to your notice and adoption."

Gentlemen,—The paper you have just heard was read on Feb. 9th, 1875, before one of our Medical Societies;* and, as it has *not* been published, and recent experience has more and more convinced me of the value of the "test-line" therein described, I have thought it well to bring the matter before you, giving at the same time such additional evidence in its favour as circumstances have afforded me. And, gentlemen, I think I shall be able to show that the opinion I have already expressed concerning the value of the test-line has been satisfactorily proved to be true by the experience of my dressers in the wards of this hospital; for I can tell you, and I do so with much satisfaction, that during the last three years at least sixteen consecutive cases of fracture of the neck of the thigh-bone have been admitted into my wards, and that all these sixteen left them with good union of the broken bone and useful limbs. You must know, also, that all these patients were advanced in years, the youngest having been fifty-nine and the oldest seventy-eight, the average age of the sixteen having been seventy-four.

And bear in mind that the diagnosis in all these cases was made by my dressers with the gentlest manipulation and the simplest means, by means of the test-line I have this day described to you, it having been my privilege only to confirm the diagnosis they had made. The injured patient was simply placed on a firm bed with his pelvis brought to a right angle with the spine, and his lower extremities slightly extended; a tape was then allowed to fall from the anterior superior spinous process of the ilium of one side to the horizontal plane of the body, A C, and a second tape employed to measure the distance between this vertical tape and the upper border of the great trochanter on the same side, C B. (This horizontal line forming the test-line.) Similar measurements being taken on the opposite side.

The two lines on the respective sides were then compared, and when no difference was found between them, it was generally assumed that no fracture of the neck of the femur existed; but when the test-line, C B, on the injured side of the body was found to be shorter than the other, and this shortening had taken place after a direct injury to the hip, the inference was drawn that there was some shortening of the neck of the thigh-bone, and that this shortening was probably due to a fracture; the amount of shortening in the neck of the bone being fairly represented by the amount of shortening in the test-line of the affected side. In many cases, however, no tapes were used, the index finger of one hand being employed to represent the vertical line, with its tip placed upon the anterior superior spinous process of the ilium, and the index finger of the opposite hand as the horizontal test-line, the thumb marking off upon the index finger the distance between the vertical line and the top of the trochanter.

You will thus see that the surgeon has in the line C B a ready and simple means of testing the existence or non-existence of any shortening of the neck of the femur. In any case of injury to the hip-joint in which a fracture of the neck of the femur is suspected, impacted or non-impacted, and in which no shortening of the test-line can be made out, the probabilities of the case are greatly in favour of there not being any fracture. Whilst in another case of the same kind in which a marked shortening is found, the surgeon can arrive at no other conclusion than that a fracture exists. Under these circumstances, no case of fracture of the neck of the thigh-bone ought to be overlooked; and in the diagnosis of the case no rough manipulation of the injured limb is ever called for, no looking for crepitus, no forced flexion of the thigh, abduction, or rotation—nothing but the simplest and gentlest manipulation of the part, and a careful measurement; and, moreover, no such blunder as that of mistaking a contused hip for a fractured one, ought to be possible. For, gentlemen, such a blunder is possible, and has been made. Indeed, not many months ago an old man, aged sixty-six, who had fallen on his trochanter, was sent into this hospital as the subject of a fracture of the neck of the thigh-bone, and he had many of the symptoms associated with such an injury; but my dressers, on examination, finding that no shortening of the test-line C B was present, concluded that such a diagnosis was wrong. And in that opinion they were quite correct, for I found the case was one of contusion only, and the man soon walked out of the hospital well.

Let me ask you then, gentlemen, not to throw aside the plan I have brought before you untried; use it and do not abuse it, for what has been found of value by those who have preceded you as dressers in this institution, as well as elsewhere, will doubtless be of value to you, as I feel confident it will to many who come after you.

* Royal Medical and Chirurgical Society.

ABSTRACT
OF A

Clinical Lecture
ON THE

DIAGNOSIS OF CERTAIN SKIN ERUPTIONS.

Delivered at the Queen's Hospital, Birmingham,

BY EDWARD MACKEY, M.D. LOND., M.R.C.P.,
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VARIOLOUS ERUPTIONS.

AFTER having spoken of the importance of the subject of diagnosis, more especially since special public wards have been opened for cases of small-pox and fever, and, after having detailed the recognised diagnostics of ordinary cases, I proceed to ask your attention to certain unusual forms of eruption; they will not be new to the well-experienced, but they are of sufficient practical importance to deserve fresh illustration.

1. *Variola hæmorrhagica* occurs under several aspects. Blood may be effused in small petechial spots shortly before, or at the time of, the eruption of *papules*, as in a lad, an out-patient, in whom we found next day the characteristic vesicles of small-pox, many of them filled with blood, especially about the legs. Or, again, blood may not be effused till the *stage of pustulation* is reached, and then gradually. But there is a third form much more dangerous and more difficult to recognise; you could not, indeed, know it as variolous unless prepared for its appearance. It is really a *purpura*, and has been well named purpura variolosa,

the term hæmorrhagic variola being restricted to the forms above mentioned. This purpura we had an opportunity of seeing in the person of another out-patient, a man with similar history to the lad, and who showed us a deep purple coloration of his abdomen and upper thighs; it had occurred within a few hours, was persistent on pressure, with here and there a whitish papule, shotty to the feel. As we were obliged to send this case to the Small-pox Hospital, I will give you the details of another one longer under observation.

H. W——, aged fifty, blacksmith, a hard drinker, on Monday, June 3rd, felt ill in the evening; had headache and vomiting.—4th: Walked to his doctor's.—5th: Had much pain in back.—6th: A rash first seen.

On the 7th I saw him and noted "there is a dark-red sheet of colour over the abdomen and upper thighs; it does not fade on pressure; there are a few round whitish spots, the size of a pea, slightly raised and hardish. The eruption is also in sheets of colour over the lower limbs, with petechiæ between. The colour is said to be less purple to-day than yesterday. There are patches of ecchymosed blood in the conjunctivæ. Patient is sensible but prostrate. Pulse 90; temperature 102° F.; respiration hurried; has diarrhœa. His back pain got better after poultices."

History.—It is learnt, on inquiry only, that there is variola in the house of his milkman, and at his favourite tavern: we know it to be epidemic. Whether patient be vaccinated or not is unknown. His attendant has told him he has measles. Patient says he has had measles twice, and like this. The prodromata, the position of the purpura, the shotty papules, and the condition of conjunctivæ led to the diagnosis of variola, but there was none of the usual eruption, and one could scarcely have called the case variolous but for the knowledge of its being epidemic.

June 8th.—Slept in the cold pack, and expressed himself as comfortable. The patches are darker purple; the papules more evidently shotty; conjunctivæ swollen and all blood-shot; urine contains blood; diarrhœa continues; is wandering at times. Pulse 90, feeble; temperature 101·6°. Five hours afterwards he died.

Of such terrible cases this is a typical history and termination. You may pass years without seeing one, but my friend, Mr. Bates, the medical officer of the Small-pox Hospital, informs me that during the last nine months there have been admitted 25 hæmorrhagic cases out of a total of 608.

2. The diagnosis of variola may be obscured by an *erythema* preceding it from one to three days; this has been called roseola exanthematica, better erythema variolosum.* This may be (a) bright in colour and simulating scarlatina, though really less general, less marked at flexures, often patchy, and more like a blush than punctate; (b) or it may be dusky, mottled with some petechiæ and patches of colour, and resemble measles or typhus; (c) it may be of deep colour, and limited to the lower abdomen and thighs, much resembling the hæmorrhagic or purpuric form, but fading on pressure. The following are instances of varieties (a) and (b); and it is worth while to note that the former occurs mostly in vaccinated persons, precedes only the *modified* form, and hence is not unfavourable; whereas the latter variety indicates, as a rule, the confluent malady.

(a) J. R——, aged seventeen, shop-girl, vaccinated. For about three weeks had had malaise and shivering, no back pain, and it is not possible to fix the date of first constitutional symptoms, but on March 17th had vomiting and a "red rash" on the chest; continued at work. On the 21st, which might be reckoned the fifth day of the rash, when umbilicated vesicles might be expected, she was sent to the Queen's Hospital by a careful and experienced medical man as a case of scarlatina. There was a red macular rash over chest and arms, disappearing on pressure, not shotty; throat red, slightly painful; tongue furred with red papillæ; slight headache and delirium. Pulse 120; temperature 103°.

You will observe that the rash was partial, was not on the face, nor most at flexures; moreover, on this fifth day, if scarlatina, the throat would have probably suffered more, the lower limbs would have shown some rash, and the upper limbs would have been partly desquamating. On the other hand, we had to consider the possibility of an irregular form of scarlatina, which it certainly much resembled.

On the 22nd the eruption was less red; some papules had appeared on the face in the course of the previous night. On the 23rd the papules became vesicles, and on the 24th characteristic small-pox pustules; there were a few others on the body and limbs. Patient transferred to the special hospital.

(b) A delicate lad, aged fourteen.—June 4th: Sickness; headache; rigors; no back pain.—5th: Very drowsy.—6th; Rash seen "in skin."—7th: First seen by me. A dusky macular rash, most over face, but a large patch on abdomen, several on legs, many petechiæ on body and limbs; there are a few papules, larger, acuminate, whitish.—*General condition:* Dozing, not easily roused; sordes on teeth; many yellowish stools to-day; some catarrh; a few coarse râles, no marked dulness; temperature 104·6°.—*History:* Ailing for six months, with emaciation and cough; the mother knows little more, having been absent till a few days ago. The lad has stated that fourteen days ago he saw a boy with small-pox (which is epidemic); it might have been measles.

Diagnosis could not be made with certainty. There was much resemblance to typhus, which we are accustomed to say we never see in Birmingham; the balance of opinion was towards measles, but the whitish papules should be noted as indications of variola, and the commencement on the third day instead of the fourth.

A warm sheet pack was ordered, and gave comfort. On the 8th there was a *bright-red* rash over body and limbs, papular in parts, but still resembling measles; temperature 102·6°. On the 10th, when next seen by me, the boy was covered with confluent pustules, not hæmorrhagic. He was sent to the special hospital.

I have quoted cases of small-pox mistaken for measles and scarlatina, but the converse happens, perhaps, more often. Mr. Bates tells me that amongst the cases sent to his wards as small-pox, are "urticaria, pustular scabies, varicella, and the exanthemata in general."

With regard to varicella, a principal source of error is the finding of some vesicles umbilicated, and it is desirable to state more emphatically than is usual in English text-books, that this umbilication, though important, is not necessarily peculiar to, or diagnostic of, small-pox. It occurs in the croton-oil eruption in herpes sometimes, and when pus is formed in a hair-follicle or sweat-gland. I have known it to give rise to much difference of opinion as to a case of *acne*, and to require careful consideration before diagnosing a pustular syphilide on the face: the "varioliform syphiloderm" of Dr. Tilbury Fox (pp. 286–9); the "acne-varicella syphilitica" of Neumann (Dr. Fuller's Trans., p. 266).

Now, varicella we constantly hold and teach to be a disease really different, and to be distinguished, from variola; but it is well you should know that this is denied by Hebra, Neumann, and others, and that what is called varicella by them really propagates variola, and answers apparently to our "modified" small-pox. (H. Fagge, Geo.)

Professor Thomas, of Leipsic, however, in a more recent essay (Ziemssen, vol. ii.), founded on a large experience, re-asserts the specific difference between varicella and variola, and infers that now the majority of German physicians (clinical teachers) recognise it. He says further, on the question of diagnosis (p. 22), "Eruptions *resembling varicella* IN ADULTS, *always* indicate variola" (modified). This, I believe to be sound doctrine, and safe to act upon.

I have said that the vesicle of herpes is sometimes umbilicated. This you can verify daily in zoster, but there seems to be a variety sufficiently resembling small-pox to be entitled to the name of "Herpes varioliformis."* It is only to such a form that I can refer the case recently in Ward 7.

Selina A——, aged thirty-two, was admitted to Ward 7

* Mr. J. F. Marson speaks of the roseola as occurring "very often," and lasting two or three days. (Reynolds's System, i., 231.) Hebra as "not uncommon," and lasting twelve to twenty-four hours. (Trans. H. Fagge, i., 58.) Curschmann (in the course of a very careful essay in Ziemssen's Cyclop., ii., 349), says:—"It is but recently that attention has been paid to certain initial (prodromal) rashes of very great interest and practical importance..... They occur with very *dissimilar frequency* in different epidemics. Thus, in 1870-71 there was abundant opportunity for their observation almost everywhere, while in most other epidemics during the present century they have appeared with comparative rarity." M. Simon is especially referred to as an early observer.

* A case termed by Hebra "Herpes impetigiformis" was admitted into his small-pox ward as varioloid (THE LANCET, March, 1872). Dr. Frank Foster has published cases of "Herpes (contagious) varioliformis" in the American Archives of Dermatology, January, 1875.

on Dec. 15th, being dangerously ill with mitral reflux, albuminuria, and anasarca. Pulse 114; temperature 100°. There was no eruption, except erythema læve on the legs.—Dec. 16th: A few papules on the right cheek and nose. No history of vomiting or other prodromata. No odour.—17th: The papules have become vesicles.—18th: The vesicles have become pustules, from the size of a pin's-head to that of a pea; some umbilicated, one group of three, and one of five. There are small vesicles on the other cheek and eyelids; a few papules on each forearm, none elsewhere.

The question of her removal (if variolous) now arose; but Dr. Heslop, who kindly saw her, agreed with me that though the appearances quite resembled what may be seen in modified small-pox, yet the whole history of the case was against it, and removal was not necessary.

Dec. 22nd.—There have been two fresh crops on the sides of the face and forehead and near the left wrist, nowhere else.—26th: The eruption on the face has a depressed scab. No fresh appearances, except purpuric spots on the limbs, connected with general symptoms of venous stagnation.

When she died, about a week afterwards, there was no trace left of the eruption. I believe that it was allied to those forms of herpes which occur sometimes in pneumonias and fevers, though different enough to need a different name. There was no history or evidence of infection.

NOTES ON

THE ADMINISTRATION OF ALCOHOL IN THE TREATMENT OF DISEASE.

BY BENJAMIN W. RICHARDSON, M.D., F.R.S.

(*Continued from p. 8.*)

III.

THERE is another class of cases of the hæmorrhagic kind in which the administration of alcohol is, according to my experience, indifferent practice. I refer to cases of recurrent hæmorrhage, cases typically seen in simple recurrent menorrhagia in women. The patient under these circumstances, greatly reduced in power, is easily misled by her own sensations to think well of alcohol. She is mentally and physically feeble. She takes, in periods of lowness, a glass or two of wine, or a large draught of stout, and for a time she feels so much relieved by the assumed remedy that she resorts to it again and again, as if it were her only support. There comes a stage at last when this belief is so firmly accepted that nothing, however reasonably or cogently said, can remove it.

The results of the treatment are, at the best, dangerous; at the worst, disastrous. There is engendered a dislike for natural good food, a depraved appetite, and a persistent dyspepsia. The bowels are rendered irregular—at one time sluggish, then relaxed; and the stomach and intestines are frequently distended with flatus. The action of the heart is feeble and irritable. The mind is depressed, and the emotions are either excited into hysterical elation or lowered into despondency. With these symptoms there is the continuance of the hæmorrhage, for a time passively, at periods actively and copious. We administer steel, or steel and quinine; we administer mineral acids; we administer gallic acid, or other styptic remedies. We employ astringent injections or other local methods for arresting the loss of blood. All our remedies, useful though they may be, are imperfect, and are slow in their operation, even when they are curative in their ultimate effect.

My experience of this class of cases now is that the first point of practice in their treatment consists in withdrawing the alcohol. As soon as the unrest which alcohol induces is set up, the vascular depression at one moment, the quick excitement at another, is allayed, and the cure commences. Peace is secured. The current of the blood flows on in steady stream; the blood regains its plasticity; the weakened vessels have rest; the nutritive changes are more naturally carried out; the nervous system is toned to even tension; and the signs of amendment begin to appear. Then our remedies seem to be endowed with new virtues, and recovery is the natural consequence. I exclude of course from these examples of chronic hæmorrhage all in which the blood is derived from a malignant source. In these the rule of abstinence from stimulant is good also, but the benefit of it is not to be accepted, as in the other instances, for a method of cure.

Patients suffering from chronic loss of blood, and who are in the habit of taking alcohol to meet the sensation of exhaustion to which they are constantly subjected, are often very difficult of treatment. They hold by the assumed remedy hard and fast, so that it is necessary to be most firm in relieving them from its bad influence. As a general fact, I find that no half measure, no temporising measure, is of avail. If one glass of wine be permitted occasionally, two will be taken, and that means a continuance of the vicious system.

The argument used by the patient against the withdrawal in these cases is special. It is that some kind of undefined but terrible danger must or will occur, if all the so-called alcoholic support is withdrawn. The only danger I know of, and that is real, is to the practitioner, who runs a risk of losing the confidence of his patient if he too determinedly maintains his position. The people generally, even the best educated of them, do not understand this question as we medical men do, and so they persist in defending an engrafted belief which an acquired appetite often sharpens to a very fine edge indeed, with an obstinacy, and, I might say, a skilfulness of argument which is truly perplexing.

The best means of securing confidence is to learn it first; to make sure by observation that the treatment suggested is safe, and having gained this knowledge with certainty, to impart it without a shade of doubt.

It is, of course, a matter of great practical moment to be sure that it is safe to withdraw from a patient that which for a period, and for long periods, seems to confer signal benefit; and for my part, if I had hesitation on the subject I would express the same. But, so far, I have not the slightest evidence before me of any harm whatever accruing from the entire and sudden withdrawal of alcohol in the class of cases under consideration. On the contrary, when the appetite for the stimulant is appeased, and the mental worry and fear which attend the withdrawal are calmed, I have never seen anything but good as the result of the practice. My experience further is that the lower a patient feels, the greater is the reason, as a general rule, for enforcing total abstinence. The chances are large that the lowness which the alcohol relieves will be intensified when the effect of the brief stimulation it has produced has passed off.

I have brought forward as types of the chronic hæmorrhagic cases those of menorrhagia first, because they are most common. I include, however, under the same class, others where blood is recurrently lost. Cases of loss of blood from piles are treated with much greater success, and with much more certainty of cure, when total abstinence from all alcoholic drink is enforced. The effect of alcohol is so decidedly to induce congestion of the liver, and venous congestion of the hæmorrhoidal veins is so ready a consequence, that many persons I have known who have been subject to bleeding from hæmorrhoids have suffered proportionately to the degree of their indulgence. All have been benefited by abstinence.

In the treatment of hæmoptysis it has been my practice at every stage of my medical career to enforce abstinence from alcohol as a part of the treatment. This practice I gleaned from an early lesson, and I have never seen any result from it except the best. It is indeed singular to observe that in the treatment of this form of hæmorrhage the administration of alcohol is, with an all but common consent, forbidden by practitioners of medicine. In the many cases of hæmoptysis I have seen and in the varieties of practice I have witnessed, I cannot recall an instance in which alcohol has been prescribed or recommended in any form as a remedy. I think I may say I do not remember a case in which it has been systematically permitted. That this practice of withdrawing stimulants in hæmoptysis prevails so generally is not wonderful. It is begotten of the fear of exciting a recurrence of the hæmorrhage by stimulating the heart. It is sustained by the manifest wisdom of the practice, by the observation, so widely confirmed, that in the worst stages of pulmonary disease the hæmorrhage ceases under the abstinence, and is in the rarest of instances the cause of death. Nevertheless, it is wonderful that this

disease hæmoptysis should have been made so remarkable an exception in respect to treatment, and that the success of treating it without stimulation, even when the powers of life are at their lowest ebb, should not have suggested the applicability and soundness of the same treatment in all other hæmorrhages, acute and chronic.

(To be continued.)

ILLUSTRATIONS OF ANTISEPTIC SURGERY.

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No. I.—CASES OF OPEN KNEE-JOINT.

THE recent discussions on antiseptic surgery have revealed a very general desire that the subject should receive further clinical illustration, and it is this consideration which encourages me to offer my experience in the matter. In the present paper are given the details of the cases of open knee-joint which I have treated by this means. The mode of procedure adopted in all of these was essentially the same, with the exception that, in the first case, no drainage-tube was used. The dressing was, on each occasion, conducted from its commencement to its close under a spray of carbolic acid. The joint having been frequently and thoroughly injected with a watery solution of the acid (1 to 20), an antiseptic drainage-tube was introduced into the wound. Over this was placed a small piece of antiseptic gauze which had been wetted in a solution of the acid (1 to 40), and over that, again, one or two dry loose pieces of the same material. Outside all was fixed, by an antiseptic gauze bandage, a large square dressing, consisting of eight layers of antiseptic gauze, under the top layer of which was interposed a piece of thin macintosh.

CASE 1. *Case of open knee-joint; primary amputation at shoulder-joint; incised wound of face; traumatic delirium; recovery.*—Wm. B——, aged thirty-two, was admitted into Ward 23 of the Glasgow Royal Infirmary, of which I was in temporary charge, on Aug. 23rd, 1873, having been knocked down by a passing train, as he was walking along a line of rails sixteen miles from Glasgow. On admission he was in a boisterous state of intoxication.

The right arm had been severed from the trunk. About three inches of the humerus remained, the greater part of it being bare and stripped of covering. The soft parts had been torn away internally as high as the apex of the axilla, and externally from a little below the point of the acromion process. There was an incised wound about an inch and a half in length beneath the left eye, exposing the malar bone. Over the right knee-joint, a little below and to the outer side of the patella, was a lacerated wound about two inches and a half in length. My finger, introduced into this wound, passed readily into the knee-joint, and it also discovered the fact that there was considerable undermining of the soft parts, downwards towards the leg and backwards into the popliteal space.

The patient having been put under chloroform, the head of the humerus was disarticulated and a quantity of torn muscle cut away. The principal vessels, which had been tied before admission with silk ligatures, were ligatured higher up with antiseptic catgut and the vessels cut off below. All the intricacies of the wound were now carefully and thoroughly washed with a watery solution of carbolic acid (1 to 20), and the usual dressings applied under a spray of the acid. A large raw surface was left from the deficiency of the soft parts.

The open knee-joint was next dealt with. Under the spray it was injected freely and repeatedly with a watery solution of the acid (1 to 20). Two antiseptic stitches were introduced and the usual dressings applied. A piece of Gooch's splint was placed at the posterior aspect of the limb, extending from the upper part of the thigh to below the middle of the leg. The wound over the malar bone was injected, stitched and dressed antiseptically.

During the night the patient proved very restless and tore off the dressings from the shoulder and face. They were soon reapplied by the house-surgeon, but were again removed by the patient. In the morning (Aug. 24th) both wounds were exposed. In his struggles he had also broken the splint placed at the back of the knee into two pieces, but the dressings were not seriously disturbed. His pulse was 96, and his temperature 100·2°. Antiseptic dressings were not reapplied to the shoulder and face, as they had been off nearly the whole of the night. The knee was dressed under the spray. There was found to be considerable effusion in the knee-joint (I had used no drainage-tube) and under the undermined tissues. Little or no blood or other fluid had escaped. I therefore removed the stitches and introduced my finger, previously carefully washed in the solution, into the wound, giving exit to a considerable quantity of bloody serous fluid. Dressings applied as before, and a new splint placed at the back of the limb. Pulse, in the evening, 114; temperature 102·4°. On Aug. 25th the discharge from the shoulder had a distinctly putrefactive odour, and it was ordered to be washed and dressed with Condy's fluid and water, changed frequently. Occasionally he removed the dressings, at other times he allowed them to remain. The knee had furnished a considerable amount of bloody oozing, but there was no redness, and only slight swelling. The wound had gaped and appeared to be draining freely. He was still delirious and now full of hallucinations, although not so boisterous as he had been. For the next three days his mental condition showed typically the usual characters of traumatic delirium. The shoulder soon began to suppurate freely. The wound over the malar bone, which had been left quite bare, healed by first intention. The knee, at first dressed daily, was found to furnish only some serous oozing, and to be free from redness, pain, and swelling. The pulse continued quick, but of good strength. Two abscesses formed in the neighbourhood of the shoulder, from bagging of the discharge, and were incised. The suppuration from the wound and these incisions was abundant, and, in spite of the frequent changing of the dressings by the nurse (three times a day), had a distinctly offensive odour. After the fifth day the serous discharge from the knee was found so slight that it was dressed once or twice on alternate days only, and latterly every third day. About the fifth day also the delirium ceased, and he began to sleep better and to take more food. During the first five days he broke the splint on four separate occasions, and always exactly opposite the popliteal space. By the middle of September the wound of the knee was clearly quite superficial, and in a very short time soundly cicatrised. *From first to last it furnished no pus whatever.* The wound of the shoulder, which had been further increased by some sloughing of the integument, discharged freely for a considerable time; and its neighbourhood continued red, swollen, and tender to the touch. Ultimately the discharge diminished, and the large wound contracted and cicatrised, so that, when he was dismissed on Oct. 6th, it was quite superficial. He left the hospital at his own desire, but was still very weak. He ultimately got strong and well, the right knee-joint being perfectly flexible.

Remarks.—This case is an interesting one, not only as a recovery after severe and complicated injury, but as an example of three very different methods of healing going on side by side in the same individual. In such a case all must admit that the special behaviour of each separate wound is due to local and not to constitutional causes. The wound of the face healed by first intention; that of the shoulder by granulation and suppuration, with sloughing of bruised and lacerated tissue and the formation of abscess in the immediate neighbourhood. The wound of the knee healed by neither the one plan nor the other. And yet this is a distinction which writers and debaters on this subject are not always sufficiently candid to draw. It is a too frequent reply to one who narrates the successful issue by antiseptic treatment of an open knee-joint, such as that just related, that an equally successful result is often obtained without any antiseptic dressings at all. And no doubt this is perfectly true. In a joint which has been purposely incised (as for the removal of a loose cartilage), or into which an accidental wound has been made by some such sharp-cutting instrument as a scythe, it is *possible* that a favourable result may be got by any carefully applied dressing. Union by the first intention may occur there, just as it did in my patient's cheek. But should the wound of

the knee-joint be allowed to gape, or should it be, as it too commonly is, of such a character as renders union by first intention impossible, there is no alternative except that it shall putrefy, granulate and suppurate, and that the patient shall run the usual well-recognised risk of the loss of his limb, or his life, or both. In the above case matters were altogether different. In spite of severe complication, this open joint, although not entirely healed until after the lapse of three weeks, from first to last behaved like a subcutaneous injury, and externally furnished only a little clear, watery discharge. It may be viewed as the severest, in the first instance, of the three injuries from which the patient suffered; and yet it was the wound of the shoulder which caused him all his pain and occasioned the whole of our anxiety. To the shoulder, moreover, was directed all the "fussiness" which we displayed in the treatment of the case, for, while it was dressed three times a day, the dressings of the knee were changed, during the greater part of the time, only once in three days. Indeed, to an onlooker, unaware of the advantages of antiseptic treatment, this disregard of the knee wound would have been inexplicable, and might have been deemed culpable. And yet many would have it to appear that the success of the antiseptic method of treatment is entirely due to what they are pleased to call the extra care and attention bestowed on the wound. Lastly, I would remark that this case illustrates also the fact, with which I am very familiar, that a non-putrefying wound, so far from involving an extra expenditure of time, trouble, and dressing materials, is, other things being equal, economical in respect of all of them.

(To be continued.)

ON GELSEMINUM SEMPERVIRENS.

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(Continued from p. 84.)

THE INFLUENCE OF GELSEMINUM ON THE FROG'S HEART.

WITH the view of investigating the influence of gelseminum on the heart, and of comparing its action with that of other drugs the effects of which on the circulation are already known, we made a number of observations on frogs. In the first place, we watched the action of the drug on the heart *in situ*. In some of our experiments we, before opening the thorax, divided the medulla oblongata by cutting through the occipito-atlantal membrane, and then destroyed the encephalon by thrusting a small piece of wood through the foramen ovale into the cranial cavity. This method of destroying sensibility is attended with but little loss of blood, but is not free from disadvantages. It cuts off the influence of the pneumogastric nerve, and to some extent, if not entirely, of the vaso-motor centre, dilating the arteries in the parts below the point of section, decreasing the blood-pressure, and in this manner exerting a considerable effect on the condition of the heart. In other experiments sensibility was destroyed in a different way. An incision was made through the integument of the skull, extending from the base of the nose in front to a transverse line just anterior to the membrana tympani behind. A disc of bone was then removed with a small trephine, and the brain destroyed by the introduction of the actual cautery into the cranial cavity. By this procedure the medulla was left intact, whilst hæmorrhage was effectually prevented by the cauterisation. Again, in a third set of experiments the drug was first administered, and as soon as voluntary power and reflex action were abolished the thorax was opened and the state of the heart observed.

Before proceeding to speak in detail of our experiments we may perhaps be allowed a word or two as to our general method of procedure, and as to the time and frequency of our observations. Every frog engrossed the attention of one or both of us for several consecutive hours. We usually commenced our work at an early hour in the morning, and remained in the laboratory until four or five in the afternoon, often paying one or more visits in the course of the evening. The animals were usually kept under surveillance for many days, or until the abolition of all vital action, care being taken to prevent them from desiccating by the frequent application of saline solution. In cases in which we compare the action of gelseminum with that of other cardiac poisons, such as digitaline and aconitine, the difference or similarity was actually observed. In every instance in which such a measure was admissible, or even possible, we standardised our frogs—i. e., we placed them side by side with an unpoisoned frog which had been subjected to exactly similar operative procedures, or to which the drug had been administered, with which we compared the action of gelseminum.

The influence of gelseminum on the heart varies considerably with the dose given, the effects produced by a large injection being very different from those which follow administration of a small or medium dose. In the first place we will speak of the influence of ordinary doses on the circulation, of which the following may be taken as a fair example.

A large German frog, having been previously weighed, was trephined in the manner already described, the cranium being eviscerated by means of the actual cautery. There was no loss of blood externally. In a few seconds the animal had recovered from the shock of the operation, and, reflex action being perfect, it was pinned out on a flat piece of cork. The thorax was then opened by cutting through the sternum, especial care being taken in this procedure to avoid injuring the abdominal vein and other vessels. The heart was then seen beating through the pericardium, which was not opened, so that the viscus was not exposed to the air. The characters of the heart's action were carefully noted, and the number of its beats was counted at short intervals. Its rate having been thus determined, the long canula of the hypodermic syringe was passed beneath the skin downwards to the neighbourhood of the posterior lymph hearts, where ten minims of the liquid extract of gelseminum was injected. At the moment of injection the heart for a few seconds ceased beating. This momentary arrest of the heart's action occurred in several frogs to which gelseminum was administered in the same way; but as the result was not constant, and as it followed the administration almost instantaneously, we concluded that it resulted from the shock of the injection, and not from any action of the drug. In a few minutes the heart was found to be beating more slowly, and in a quarter of an hour its rate of pulsation had been reduced from 68 to 48 beats in the minute. Neither in this nor in any other case was any initial quickening observed. A few minutes later a change was noticed in the character of the heart's action—a change which ensued slowly and gradually. There was no irregularity either with regard to time or the mode or relative order of contraction of the cavities of the heart, but the range of the heart's action had been distinctly lessened. The ventricle was contracting well and firmly, but it was in a state of almost constant contraction or semi-contraction, there being very little dilatation. The heart was acting badly, not because it was unable to contract, but because it dilated so feebly that little blood entered its cavities, and there was consequently little for it to expel. At this time there had been some impairment of reflex power, but it was far from being abolished. A few hours later, when reflex and voluntary power had quite ceased, the range of cardiac action was found to have been still further reduced, and the number of pulsations of the ventricle in the minute had fallen to four. At this time the auricles were beating more frequently than the ventricle, there being usually two pulsations of each of the former to one of the latter. At the expiration of twelve hours the heart had ceased beating; it had stopped in systole. The ventricle was strongly contracted, being small, hard, and perfectly white. The auricles were flaccid and soft, but were not distended with blood. The general condition of the heart was exactly the reverse of that produced by a moderate dose of aconitia. On irritating the ventricle the auricles recommenced beating, and after a few minutes a little feeble action was perceptible in the ventricle, the number of pulsations, however, being not more than three or four in the minute. This continued for about an hour, when the heart was again arrested in systole. This resumption of the heart's action

on irritating the ventricle was frequently noticed in these gelseminum hearts, it sometimes occurring several times. The heart continued to contract long after respiration had been completely abolished.

This pale contracted heart was found in nineteen frogs to which we administered small doses of gelseminum. It was readily and uniformly produced by the subcutaneous injection of from two to fifteen minims of the liquid extract of gelseminum, and by doses of the solution of Mr. Gerrard's preparation of the chloride of gelsemin, corresponding to from one-twentieth to one-fourth of a grain of the alkaloid. The exhibition of larger quantities of the drug was usually followed by the production of other conditions, to be presently described.

To return, however, to our experiments. Were the effects we have witnessed actually due to the injection of the drug? In the first place, as regards the slowing. What proof, it may be asked, can we adduce that the retardation of the cardiac action was actually caused by the gelseminum and was not due to exposure to the air or other extraneous cause? As already stated, we standardised our frogs. Side by side with our gelseminum frog was placed another frog, the brain of which had been destroyed and the chest opened, so as to expose the heart. The cardiac pulsations in this frog were counted hourly for twelve hours; and during that time there was but little variation, and no ultimate retardation in their frequency. Moreover, some months ago, whilst investigating the action of jaborandine on the heart, we opened the thorax and pericardium of a normal frog, and took the rate of the heart's pulsations every quarter of an hour from 10.15 A.M. to 4.30 P.M. In that case there was no diminution in rapidity, the last observation differing by only two beats in the minute from that of the first. Our experiments may then, we consider, be regarded as affording a conclusive proof that gelseminum slows the heart.

We proceed next to consider in detail the peculiar pale contracted character of the heart in these frogs. Was this caused by the drug? Such a condition, it may be argued, might possibly have arisen from the hæmorrhage attendant on the operation, the heart accommodating itself to the amount of blood contained in its cavities. What proof have we that such is not the case? We performed the following experiment. We pithed a frog, and then opened the thorax, purposely cutting all the vessels with which we came in contact, and also divided one of the femoral arteries. The loss of blood was in this case much greater than in any of our gelseminum frogs. There was no decrease in the frequency of the cardiac pulsations, and the heart, although it ceased beating in systole and was quite pale, was very much less firmly contracted than the majority of gelseminum hearts. A further, and if possible a more conclusive, proof is afforded by the fact that the typical small gelseminum heart was frequently observed in cases in which there had been no loss of blood, the thorax not having been opened until the drug had caused complete arrest of the circulation. That the condition of the heart was not due to destruction of the brain is proved by its frequent occurrence in animals which had not been pithed. It may, therefore, be concluded that gelseminum, in moderate doses, produces a small, white, contracted heart.

We now pass on to the consideration of the effects produced by a very large, we may say an overwhelming, dose of the drug. A frog weighing thirty-one grammes having been trephined, and the brain destroyed by the cautery, the thorax was laid open so as to expose the heart. It was found to be beating regularly, about 40 in the minute. A large dose of the solution of the alkaloid (= ½ gr.) was then injected in the neighbourhood of the posterior lymph hearts. In twelve minutes the number of pulsations in the minute had been reduced by nearly one-half, and the ventricle was found to have increased in size, and to have assumed a darker colour. The ventricular contractions had lost much of their power, and appeared to be incapable of expelling more than a small portion of the blood with which the cavities of the heart were distended. A few minutes later a little irregularity in the heart's action attracted attention, the irregularity consisting chiefly of pouching at the apex. This disordered action was less distinct and more transient than in cases of poisoning by digitaline. The heart gradually assumed a deeper and deeper colour, the diastole was very greatly prolonged, and even in its imperfect systole the ventricle never lost its deep modena tint. Its appearance differed strikingly from that of the pale, contracted heart described as resulting from a small dose of gelseminum, but presented a very close resemblance to that produced by the injection of one-fifteenth of a grain of aconitia. These cardiac changes commenced before the tetanic symptoms made their appearance, and even before there was any impairment of reflex power. The heart continued to contract feebly for nearly twenty-four hours, its rate of pulsation gradually decreasing in frequency till it was finally arrested. Post mortem the heart was the prominent feature of the thorax. It was distended, soft, and flabby, and of a colour closely resembling that of the liver, for which at first sight it might readily have been mistaken.

The large gelseminum heart was obtained by us in twenty frogs, in some of which the brain had not been destroyed, and was uniformly produced by doses of the liquid extract exceeding twenty-five minims, and by doses of the alkaloid exceeding half a grain.

We have now to speak of the effects on the circulation produced by moderate doses of the drug—by, let us say, twenty minims of the liquid extract, or by one-third of a grain of the alkaloid. By the injection of a frog with these quantities sometimes the contracted heart was produced and sometimes the dilated. How can we account for the production by the same dose of medicine of such different effects in different animals? Why should we sometimes obtain the small dose heart and sometimes the large? Could the disparity have resulted from the escape of any of the fluid after its injection? Certainly not; we took especial care to avoid this possible source of fallacy. In the first place, the canula of our hypodermic syringe was extremely fine, and made an opening not larger than a pinhole; in the second place, the aperture was made at some distance from the point of injection; and, finally, when large quantities of fluid were used, the frog was held vertically in the folds of a cloth until some of it had been absorbed. Could the difference have arisen from the non-absorption of some of the fluid? Possibly to a slight extent. We can inject the drug under the skin, but cannot ensure its absorption—that is a point which rests entirely on the frog. We imagine, however, that the differences to which we have referred have their origin chiefly, if not wholly, in the varying size of the frogs. With the view of investigating this point, we weighed sixty frogs, either during life or soon after death, and found that their weight varied from eight to fifty-eight grammes. This variation in the size of the animals was clearly the source of our difficulty, and the discrepancy in our results was consequently more apparent than real. This was confirmed by reference to the individual experiments to which we had appended the weights of the frogs.

Granted, then, that the same dose of the drug always, in frogs of the same weight, produces the same condition of heart, what have we to say respecting the great differences observed in the hearts resulting from small and large doses? Why should a small dose of gelseminum produce a small contracted heart, and a large dose a large dilated heart? We have no explanation of these phenomena to offer, but may point out that the ultimate effect on the circulation is in both cases the same. Stasis in the vessels is produced equally by a heart which is so firmly contracted that no blood can enter its cavities, and by a heart which is so gorged with blood that it cannot expel its contents.

(To be continued.)

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—On Friday, Jan. 7th, the fourth meeting of the Society was held at the Royal Kent Dispensary, Greenwich-road, Dr. J. N. Miller, President, in the chair. Dr. Thomas B. Peacock read a very valuable and instructive paper "On Rheumatic Carditis." The next meeting will be on Friday, Feb. 4th, at 8 P.M. precisely, when Dr. Tilbury Fox will read a paper "On Ringworm."

TESTIMONIAL.—A massive silver salver with an appropriate inscription was presented last week to Mr. George Tatham, of Brighton, on his retirement from practice, which extended over a period of thirty years. Only ladies, former patients, were allowed to subscribe—a cheque of 20 guineas from a gentleman being returned. Mr. Arthur H. Cox, one of the borough justices and late mayor, acted as treasurer.

CONTRIBUTIONS TO AURAL SURGERY.

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No. III.—CLOSURE OF THE EXTERNAL AUDITORY MEATUS.

PARTIAL or complete closure of the external auditory meatus, although not a very common condition, is one which occasionally calls for surgical interference. The tissues by which this canal may become closed are either bony, in the form of so-termed exostoses, or connective in one of two forms: firstly, as congenital closure; and, secondly, as a firm cicatrix at the opening of the ear. This latter condition is at times induced by a long-continued profuse discharge from the external meatus, due sometimes to a perforation of the tympanic membrane, at other times when this membrane is entire. The external part of the ear becomes inflamed, and the opening, so to speak, skins over, leaving a small hole just large enough perhaps to allow the passage of a small probe. When this state becomes permanent, in addition to the disfigurement which it causes, such an aperture is obviously too small an inlet for the passage of sound to the tympanum; and how difficult it is to restore the opening to the auditory canal is sufficiently well known to those who have made the attempt. Dilatation, however practised, produces only a very temporary effect. For example, if this dense tissue be freely cut through, say by a crucial incision, the flaps turned outwards, and the opening thus made be carefully plugged with lint and dressed daily, it will close in a few days after the dressing is discontinued as firmly as before. Sponge tents, pieces of gum-elastic catheter, and a variety of other expedients have from time to time been used with a view of keeping the opening patent; but such attempts have, so far as I know, universally failed. The extreme difficulty then, so generally experienced in this respect, makes the following case especially worthy of attention, as the results of the plan employed proved most satisfactory.

In February, 1875, a young lady aged twenty-nine applied to me under the following circumstances. In the middle of the previous October, she, being in good health, was seized with acute pain in both ears. This lasted five or six days, and was succeeded by a purulent discharge from both ears and cessation from the pain. After this the suppuration continued to be profuse, and there was occasionally some return of the pain, for the relief of which poultices were very frequently employed. It was during this period that the external openings of the ears, being subjected as they were to the irritating influence of the discharge, became inflamed, covered with granulations, and, lastly, were the seat of cicatricial tissue; in other words, the tragus on either side having been lost by ulceration, the openings of both ears skinned over, leaving, however, a minute hole (large enough to admit an eye probe), through which from time to time oozed a thin purulent discharge. The deafness on both sides was extreme. From the history of the case, it would be supposed (although this supposition eventually turned out to be incorrect) that the tympanic membranes were perforated. Both sides were treated in the same way. The patient was placed under the influence of ether. Taking the small orifice above mentioned as a centre, a free incision was made upwards, downwards, inwards, and outwards, and the opening thus made plugged with lint. On the next day the lint was taken away and replaced by pure lead contrived as follows: A piece of thin lead sheeting was rolled until it was of a size that exactly fitted the canal, and was then inserted to the depth of about three-quarters of an inch. The plugs were removed night and morning, the ears were syringed, and the plugs replaced and kept in position by a bandage round the head. In the course of ten days the rim of the openings had cicatrised around the lead; the canals were of their natural calibre, and an examination of the tympanic membranes became possible. It was then found that they were entire. There was no further discharge from the ears. The difficulty in the management of the case now began, for it was found that if the lead was allowed to remain out of the ears for even half an hour the meatus became swollen and painful, and there was the greatest difficulty in replacing the lead. This curious condition was so marked that the patient one night took out the lead at 10 o'clock, syringed the ears, and by my desire left out the lead till 11 o'clock. She then found that she was unable to replace it, and came at 12 o'clock to me, when I was obliged to use considerable force, causing great pain, before I could reinsert the lead. For more than two months the patient used the greatest care in managing the replacement of the lead after it was taken out of the ear, very gradually increasing the periods during which she left the ears without the plugs from ten minutes to twenty, and so on up to four or five hours. At the end of two months the openings were considered to be permanent, and the ears were left unmolested. Four weeks after this, having left London, she awoke one morning feeling great heat and pain in the left ear. She attempted to put in the lead, and failed. Ten days later she came up to town again, with the ear in precisely the same condition as before the operation, the right ear, however, continuing well. To make a long story short, so far as the left ear was concerned, all the same trouble as before was gone through. She made a good recovery, and both meatus have since remained normally patent.

In connexion with this case I would here suggest the question, Might not a similar procedure be adopted in those cases of congenital closure of the meatus where a very considerable degree of hearing is present—i.e., where the deviation from normal hearing is no more than would be caused by the connective tissue which separates the external auditory meatus from the outer ear? Congenital closure of this passage is, as a rule, accompanied by complete deafness, and then is doubtless coexistent with some other defect in the auditory apparatus; but this is by no means always the case, for I have on several occasions seen instances where the hearing has been so good as to admit of the acquirement of speech in young children, and such an extent of hearing in very young children means a very slight degree of deafness.

Even more difficult of management, and at times more urgently calling for interference, than any of these examples of closure of the external auditory canal, are those in which bone forms the obstacle to the passage of sound: cases of so-termed exostosis. Bony growths in this situation are far more frequent than is generally supposed; and this may readily be imagined when, from Oct. 1874 to Oct. 1875, no less than fourteen cases came under my observation in private practice, in eight of which one ear only was affected. These growths are, more often than not, multiple—i.e., in the same meatus, where there is one there are generally more. And it is a remarkable fact that, although exostoses are met with in one ear alone, it not unfrequently happens that both meatus are affected similarly, not only in respect to the presence of these tumours, but also as to their size and number. Thus I have seen three large growths so nearly meeting in the axis of the canal as to wellnigh obliterate the passage, and on examining the other ear have found an exact counterpart. That small bony enlargements in the external auditory canal are sometimes congenital I feel tolerably confident, that they remain without any perceptible change in size for many years I have satisfied myself beyond question, and that they should at one time increase synchronously (as they undoubtedly do) in either canal, and at another affect one ear only, is at least interesting, if not capable of explanation. It would seem that they are at times called into existence by an irritation, so to speak—by the irritating influence of a discharge coming through a perforate tympanic membrane and constantly passing over the meatus; at least, such an explanation appears not so improbable when an exostosis is found in the ear so affected, whilst the other (a healthy ear) is free from these growths; but, on the other hand, such a theory will not hold true when the ear in question is to all appearance and shown by all known tests to be in perfect health, save the bony enlargement itself.[] As to Mr. Toynbee's theory of their gouty origin, it is hardly necessary to revert to it, except to say that experience amply proves its fallacy.

In place, however, of speculations as to the origin of bony enlargements in the part under notice, it is more useful to consider what is the best to be done when they become the source of inconvenience and trouble. Very often for many years they remain unnoticed until a little

cerumen completes the closure of the already partially closed canal, and the consequent deafness directs attention to the ear. So long as the meatus can be kept clear of secretion by oft-repeated syringing, it is undoubtedly better not to interfere any further; but there are two conditions under which an attempt should be made to remove these growths,—1st, when behind the exostosis there is a perforation of the tympanic membrane, a polypus growing from the lining membrane of the tympanum (the protrusion of some part of the polypus beyond the exostosis will afford evidence of its existence), and thus preventing the free egress of discharge from that cavity, inducing symptoms of cerebral irritation, and so threatening life; 2nd, when the exostosis, by completely closing the auditory canal, causes intense deafness.

The removal of exostoses in the external auditory canal is beset with difficulties. The very position of the growths makes it necessary that all work must be done under light reflected from a mirror worn on the forehead of the operator. To keep this light steady, the patient's head must be absolutely motionless, and the surgeon's head must be so as well. Again, the size of the canal not only limits the movements of instruments, but also their use to but few, and any bleeding checks all proceedings until such bleeding can be stopped. Moreover, the intense hardness of the exostosis does not facilitate matters. There are two modes of operating which are deserving of especial mention. The first was originally suggested and successfully practised by Dr. Thos. E. Clarke, of Bristol, in 1873, in a case of a large exostosis which almost filled the meatus. Three needles were introduced into the growth, two at the base and one at the anterior edge. Through these needles a continuous current of electricity from six pairs of plates of a Stöhrer's battery was passed for three minutes. Fourteen days afterwards this was repeated; and three weeks later the growth was so loose as to be readily extracted, and the patient made a very good recovery. Since Dr. Clarke's case was published, in adopting similar measures, owing to the extreme hardness of the bone, I have found it convenient to drill holes into the base of the tumour to permit of the introduction of the needles; and I can testify to the success which attends this plan of removing bony growths. But I have to relate a most unfortunate mishap which occurred upon one occasion, when every precaution (so far as could be foreseen) was used. The case was one in which there was a polypus behind the exostosis, and unpleasant symptoms of cerebral irritation made the operation necessary. Two needles were inserted at the base of the tumour, and the current was passed for two minutes. The patient, a healthy man thirty years of age, suffered a good deal of pain during the night after the operation; and on awaking the next morning the facial muscles on the side operated upon were paralysed. This happened in November, 1874, and the power of movement up till now has been only partially regained. This accident must have occurred from one of two causes: either it was the immediate consequence of the electricity as applied, or else it was due to inflammation in the tympanic cavity set up by the operation. For myself, I am satisfied that the latter explanation is the correct one. We know how frequently acute inflammation in the tympanum will produce paralysis of the muscles supplied by the portio dura, affecting as it does that part of the nerve in the aqueduct of Fallopius; and we do not as yet know that an electric current passed as was done in this case (so that the course of the current was at a considerable distance from the nerve) is capable of causing such an effect; and again, if the current had immediately paralysed the muscles, the paralysis would have occurred during the operation, and certainly on the evening of the day of the operation there was no facial paralysis. I have thought it right to publish this account that it may serve as a caution in the future to others besides myself in dealing with similar cases, but how far we shall be justified in abandoning this method of treatment because an unfortunate accident happened in a single case, each one must judge for himself. The removal of exostoses in the external auditory canal is not sufficiently common to supply a very large experience, but I must confess to have kept on the safe side since this case, and to have employed another method, which is entirely free from the slightest risk of any like catastrophe. It consists in grinding the bone away, and the most satisfactory appliance for this purpose I find to be the drill which is in common use among dentists. The variety of steel instruments which can be fixed to this, and the perfect command with which the instrument can be directed, render this an especially convenient instrument. Reflected light of course must be employed, the patient must be made insensible to pain, and a third person must turn the lathe, or cease turning, according to the directions given him at the time; with such precautions I know of no such ready method of destroying these bony growths when their removal becomes imperative.

ON PROFESSIONAL MUSCULAR ATROPHY.

BY DR. E. ONIMUS,

LAUREATE OF THE PARIS ACADEMY OF SCIENCES, MEMBER OF THE PARIS SOCIETY OF BIOLOGY, ETC.

ACTIVITY of muscles determines the development and energy of muscular fibres, and the general law is that the more a muscle works the larger and the more powerful it gets. This law, however, has its limits, and I have just observed a certain number of cases in which the exaggerated work of certain muscular groups, far from producing hypertrophy, induced, on the contrary, a condition of considerable atrophy.

These cases are observed only in individuals who, through the nature of their trade or work, are obliged to contract the same muscles constantly. Through excess of activity, irritation of the muscular fibres supervenes. Thus, in a man employed in a draper's establishment, and whose business was to replace the unfolded goods on their shelves, there supervened, little by little, a most remarkable atrophy of the deltoid muscles of both sides. And, indeed, it was these muscles which were constantly actively employed in performing this special work.

In a workman employed in a tannery, who was every day for eleven hours at work, and always felt aching and fatigued after his day's labour, there likewise supervened marked muscular atrophy, confined to certain muscles. In order to prepare the skins, he was to perform with both arms a forward and backward movement, which necessitated especially the action of the muscles of the shoulder, so that these were the first to be affected, and are at present almost completely atrophied. The wasting away is almost the same in both arms, as both were in action during the man's work, whereas, in respect to the legs, the right one alone was obliged to support the whole weight of the body. Consequently, with the lower limbs, the right leg is the only one that has wasted; it is one-half smaller than the other, and the affected muscles are those the action of which was the most constant, such as the rectus femoris, vastus externus, and vastus internus.

In the beginning, the patients complain especially of prostration, of weakness even in the morning on getting out of bed. They feel—particularly at the outset of the disease — intense, darting, intermittent pains. Before atrophy is well-marked there always exists more or less temporary contraction of the muscles.

When wasting has once begun, it follows a most rapid course if the patient continues to fatigue his muscles.

Almost always this affection is mistaken for progressive muscular atrophy, but it differs from it in its course and in a great many of the symptoms. 1st. The muscles which are the first to be affected are generally the largest ones, and particularly those in the neighbourhood of the shoulder-joint. 2nd. The pain and cramps at the outset are also a distinctive sign. 3rd. These cases of wasting amend rather rapidly under the influence of rest and the use of constant and continuous electric currents.

Recently I observed one case which it was most difficult to differentiate from progressive muscular atrophy, as the atrophied muscles were the same as those which are the first affected in this latter affection. They were the muscles of the thenar eminence, and chiefly the adductor pollicis. The patient was an enameller, who had to hold an object all day between his thumb and index-finger. He first got cramps in the thumb, which suggested the idea of scrivener's palsy, then tremor of the thumb, on account of the fibrillar contractions, and, lastly, atrophy. Under the influence of treatment there was a rapid amendment,

which showed that the case was really one of professional muscular atrophy, and not commencing progressive muscular atrophy.

Paris.

A Mirror of HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

THREE CASES OF EXTENSIVE EPITHELIOMA INVOLVING THE LOWER JAW; REMOVAL BY SECTION OF THE BONE AND THE GALVANIC ECRASEUR.

(Under the care of MR. CHRISTOPHER HEATH.)

THE following case, for the notes of which we are indebted to Mr. Gould, is a continuation of the series we commenced last week.

CASE 2. *Epithelioma of tongue, involving lower jaw; removal of growth and three inches of the lower jaw; wound healed; death from broncho-pneumonia.* — E. B——, aged fifty-one, a printer, was admitted Nov. 19th, 1875. He was a pale, delicate-looking man, with an anxious expression; and complained of pain in the mouth and inability to protrude the tongue. The tip of the tongue was found to be fixed just behind the incisor teeth, and a hard ovoid mass was felt between the tongue, jaw, and hyoid bones, the larger end being forwards. This mass was about the size of a pigeon's egg, smooth, with a small rounded nodule on the left side, firm, elastic, implicating the tip and the anterior fourth of the tongue but not reaching to the surface, and firmly fixed to the lower jaw. Opposite the left canine and bicuspid teeth was a raised ulcer with firm granulations, and opposite to this was a depressed ulcer in the gums of similar character. Nothing of this growth could be felt from the outside; there was one enlarged gland below the left angle of the jaw. There was soreness in the ulcers, and occasional shooting pains round the tip of the tongue; the pain quite prevented all mastication; no trouble in swallowing. Manipulation of the growth greatly relieved the pain.

The history was that in July last the man noticed a number of small "boils" under the tongue, which broke, and did not trouble him much. These "boils" seemed to run together, and in August he noticed that in yawning he cracked the floor of the mouth where these boils were; this fissure was very sore indeed, but the pain was relieved by alum. He was then free from trouble till October, when he noticed a lump beneath the tongue, which gradually increased in size. He had some slight but indistinct recollection of running a pipe into the left side of the mouth, but he had forgotten exactly when. Eight years ago he had hæmoptysis. No history of cancer in the family.

On Nov. 24th, while under chloroform, the parts of the lower jaw and tongue that were involved were removed. Mr. Heath made an incision down the middle line of the lower lip, and dissected back the flaps from the bone. A hole was then drilled through the jaw, outside each canine tooth, and the bone sawn through just inside these holes; the saw was directed straight back on each side, and not at right angles to the plane of the bone. The wire of the galvanic écraseur was then put round the tongue and the muscles beneath it, well behind the disease. The division of the tissues was made in four minutes. An attempt was made to bring the two pieces of the jaw together, but this was found to be impossible. (It was for this purpose that the holes had been drilled.) Three hare-lip pins were passed through the lip, and a thread through the tongue was fastened to one of the pins for the first seven hours.

The patient was fed by means of a soft catheter, which was passed to the back of the mouth over the tongue, which was tilted up against the hard palate, and had to be drawn down by the thread fastened to it to allow the catheter to pass; he had eight ounces of brandy, four eggs, and beef-tea per diem. The wound in the lip healed by first intention, except a small aperture at the lower end, through which stained and then clear watery fluid drained on to a bib of oakum tied on round the neck. The top pin was removed on the 27th, and the other two on the 28th. The tongue became at first a good deal swollen, and was covered with a soft yellowish slough, which had separated on Dec. 2nd. The tongue was painted every morning and evening with glycerine and carbolic acid, and the mouth washed out several times a day with terebene lotion. For the first few days the patient's chief complaint was of the sticky mucus which collected in the mouth, and the gland under the jaw was tender the day after the operation. On the third day he had a slight attack of diarrhœa.

On Dec. 1st the sloughs on the gums had separated, leaving the edge of the sawn jaw exposed, and this hurt the tongue and made swallowing difficult. Next day this was much better, and he was able to feed himself, by means of a feeder with a soft spout, but in the evening there was a little hæmorrhage from the floor of the mouth, easily stopped by syringing with cold water. Up to this time the temperature had not been above 99·2°, with pulse of 100, of good strength. For two days he had complained of cough, and coarse moist râles were heard on the left side of the chest, for which a poultice was applied, and a turpentine stupe on Dec. 2nd.

3rd.—Temperature 100·1°; pulse 100. Ordered a mixture containing ammonia, squill, and senega. He complained of pain close to the condyles of the jaw.

4th.—Temperature rose to 102°; pulse 120. Loud grating friction was heard all over left back. Respiration 30.

5th.—Temperature 103·4°; pulse 128; respiration 32. He had a rigor which lasted a quarter of an hour in the morning. Not so well; complained of pain in his chest and dyspnœa.

7th.—Temperature 100·8°; pulse 148; respiration 50. Patient had a disturbed night. He was weaker, more cyanosed, and had considerable dyspnœa. Sonorous râles over right lung; same over left, with soft friction; no dulness. Fluid continued to flow through the drain at chin. At 3 P.M. to-day he died asphyxiated, exactly thirteen days after the operation.

At the post-mortem examination old adhesions were found in both pleuræ, with a little recent lymph on the right pleura, and a considerable quantity on the left. Both lungs were very much congested, and in the left base some patches of pneumonia were found. There was nothing to note about the other viscera. The end of the tongue was found to be healed over, and the tissues at the floor of the mouth were cicatrised, but there was still a small interval at the lower part of the incision in the lower lip. The cut surfaces of the bone were bare, separated by an interval of about an inch.

The growth in the tongue was examined microscopically by Mr. Gould, and proved to be epitheliomatous, but without "nests" of cells, and was just like the growth in Case 1. There was no apparent recurrence in the mouth, and sections of tongue and the tissues of the floor of the mouth and gums taken after death appeared quite free from the growth.

These two cases were remarkably similar, but the first was by far the more serious, and appeared to be scarcely amenable to treatment. The bloodless removal of the tongue, with all the diseased sublingual tissues (including the muscles and salivary glands), was readily accomplished by means of the galvanic écraseur when the symphysis of the jaw had been isolated with the saw. Although in these cases three inches of the jaw were removed, the halves of the bone were generally approximated by the action of the muscles, and therefore in the second case Mr. Heath endeavoured to bring the halves of the jaw together at once with wire, having been careful to apply the saw at such an angle that the bones should fit accurately. It was found, however, impracticable to bring the parts into apposition without undue strain upon the articulations, and the attempt was abandoned. Nothing could be more satisfactory than the patient's progress in the first case, his pain being completely relieved, and so far a perfect cure having resulted. The second patient fell a victim to the late severe weather, dying of bronchitis, when the greater part of the wound was healed.

QUEEN'S HOSPITAL, BIRMINGHAM.

OVARIAN TUMOUR; TAPPING; INFLAMMATION OF THE CYST; OVARIOTOMY; RAPID RECOVERY.

(Under the care of Mr. JOHN CLAY.)

THE following case, for the notes of which we are indebted to Mr. J. Spofforth, resident obstetric assistant, is interesting as illustrating—first, the liability of the occurrence of inflammation of the cyst after the operation of tapping; and, secondly, the comparative safety of ovariotomy after the supervention of inflammation. It must, however, be borne in mind that this case, and others like it are exceptional, and must be regarded as such—that is to say, the fact that inflammation may occur after tapping is not an indication that the major operation of ovariotomy should in such cases be practised in the first instance.

A. S——, aged fifty-two, widow, was admitted on Nov. 9th, 1875. The patient always enjoyed good health until the present illness. She has had three children, the youngest nineteen years of age, and no miscarriages. Menstruation was regular till two years ago, when it ceased. About eighteen months before admission, while in the enjoyment of perfect health, she perceived a small movable substance in the right iliac region. This swelling, however, she said disappeared. In February, 1875, she had a somewhat sudden attack of severe pain in the right side of the abdomen, for which she obtained medical advice. After this the abdomen rapidly enlarged, and an ovarian tumour was diagnosed. In August this tumour was tapped by her medical attendant, and a pailful of clear, gelatinous fluid withdrawn. Towards the end of October, the abdomen had become as large as when tapped, and she applied for admission into the hospital.

When admitted she was emaciated, the face was pinched and of an anxious expression; she complained of anorexia and nausea, difficulty of breathing, a constant cough, and œdema of the lower extremities. The abdomen was enormously distended, the superficial veins enlarged, the surface smooth and uniform, and there was tenderness on pressure in two or three spots. There was dulness on percussion in front, and resonance in the flanks, with distinct fluctuation. The fluctuation could be felt within a number of limited areas only, which showed the cyst to be compound.

The abdomen measured at the umbilicus 41½ inches, and two inches above this 40½ inches in circumference; from the umbilicus to the ensiform cartilage 8¼ inches, to pubes 11 inches, to right anterior superior spine 12¼ inches, to left anterior superior spine 13 inches. Urine was healthy, sp. gr. 1030.

A vaginal examination proved the uterus to be of its natural size, slightly drawn upwards, and anteflected. Temperature of body normal.

On Nov. 17th she was again tapped, and 160 oz. of straw-coloured, gelatinous, and alkaline fluid, of sp. gr. 1021, removed. Subsequently the chest symptoms were much relieved, and the œdema of the legs disappeared, but she complained of an acute pain in the right iliac region, and of great tenderness on pressure. The abdomen again became distended to about the same size as on the 17th, before she was tapped. The pulse became more frequent, and the temperature increased.

Suspecting inflammation of the cyst, Mr. Clay deemed it advisable to remove the tumour as soon as practicable, and on Nov. 27th the operation was performed. Ether having been administered, an incision was made five inches in length, below the umbilicus, in the median line. There was considerable hæmorrhage from some superficial veins, but it was arrested before the peritoneum was opened. The walls of the cyst were very thin, and gave way under the traction made by the hooks of Wells's trocar. The patient was then turned on her side, and the fluid evacuated by pressure on the abdomen. After securing the slight adhesions that existed on the right side and in front, the pedicle, about four inches in length, came into view, was fixed with a clamp, and cut. A large cyst remained, which gave way whilst being withdrawn with the vulsellum forceps, and its contents, about 18 oz. of purulent fluid, escaped, but fortunately, owing to the patient being on her side, none was allowed to enter the peritoneal cavity. The tumour was then freed from the remaining adhesions, and easily withdrawn. The tumour proceeded from the right ovary.

The wound having been closed with deep and superficial sutures of silk and wire respectively, the patient was removed to bed. Reaction was slowly established, and she was several hours before she recovered from the effects of the ether. The pain, occasionally very severe, was soon relieved by morphia administered hypodermically.

It is not necessary to record the daily progress of the case. The temperature only on two occasions exceeded 100° F., and the pulse averaged about 90 per minute. There was cystitis and incontinence of urine, so that, in spite of every precaution, a small bedsore formed over the sacrum on the tenth day, but as the patient was able to lie on her side, it gave but little trouble. She was well enough to sit up on the fourteenth day, although it was deemed advisable to delay her doing so till the seventeenth.

The cyst weighed 2 lb. 17½ oz., and the fluid contents which during the operation had been evacuated measured 250 oz. It was multilocular, consisting of two large cysts, with a dense mass of smaller ones. The largest cyst contained a quantity of purulent fetid fluid, with flakes of lymph of a dirty yellow colour; its wall was thin, injected, very lacerable, with several hæmorrhagic patches on its surface.

ROYAL INFIRMARY OF EDINBURGH.

CASES UNDER THE CARE OF MR. JOSEPH BELL.

THE following cases, which have recently been treated in Mr. Bell's wards, are good illustrations of the extraordinary powers of recovery from severe and extensive injuries exhibited by young healthy patients. In all the cases the antiseptic method of treatment was carefully used for the injuries which required it.

CASE 1.—Peter B——, aged thirty-five, a short, thick-set, extremely muscular man, while engaged as a slater on a very high roof of an hotel which is being erected at North Berwick, fell a distance of between sixty and seventy feet on stones and rubbish. He had not been insensible, and when admitted to hospital, after a journey of upwards of twenty miles, was quite conscious. He had sustained a dislocation of the left femur into the foramen ovale. His left forearm was broken about the juncture of lower and middle thirds; both bones were broken, with considerable comminution and bruising. There was one large lacerated scalp-wound over left parietal and temporal regions, and the whole face, nose, and lips were torn, cut, and bruised, so that his features were not distinguishable. The dislocation was at once reduced by Mr. Bell under chloroform, by manipulation, the fractures set, and the wounds dressed antiseptically, so far as this was possible.

His recovery was absolutely uneventful; the highest temperature recorded in the case was 100·2° at one evening visit. The wounds healed entirely by first intention, and the hip never gave him the slightest inconvenience. He was dismissed on Nov. 27th, 1875, four weeks after his admission.

CASE 2.—George F——, aged twenty-six, a powerful railway labourer, was brought into hospital on Nov. 27th, after a journey of about twelve miles, including a ferry of six miles, with the following history. On a wet windy afternoon he was walking on the rails, and was struck by the engine of a fast train and knocked off the rails, with great force, against the rocks which bounded the line. He was quite insensible, though his pupils were freely mobile and equal. His right clavicle was extensively comminuted at the outer two-thirds, and separated from the acromion process of the scapula. Four ribs were broken on the right side, and extensive emphysema followed. The right upper jaw was shattered, and the right cheek divided into two from the angle of the mouth backwards nearly to the ear. The lower jaw was broken near the symphysis. An extensive triangular laceration reached from the root of the nose, across the forehead, nearly to the vertex, exposing the bone to the extent of nearly the size of a half-crown. For nine days the state of concussion continued, and he was restless, unmanageable, and delirious, pulling off the dressings and requiring constant watching. During all the time, however, his temperature only once reached 100°, and his highest

pulse register was 90. The wounds were kept antiseptic, and his recovery has been complete.

CASE 3.—Alexander S——, aged seventeen, a stoker, was, on November 15th, 1875, knocked down by a loaded railway waggon, weighing thirteen tons, which passed over both his legs, crushing them to fragments. He was put into a cart, after the limbs were temporarily fastened up, and conveyed about twenty miles, including a ferry of six miles, to the hospital. The journey took several hours; and on admission at 5 P.M. he was so weak that it seemed scarcely possible he could survive. Mr. Bell amputated both legs as rapidly as possible, and with antiseptic precautions, just below the knee, saving skin flaps. Chloroform was given with a liberal hand, and the pulse seemed to rally under it. He was got to bed within fifty minutes, just alive and no more. Nourishing enemata were given; but it was not for twelve hours that the temperature came up to normal. The pulse was fluttering and irregular for at least twenty-four hours. The patient was watched day and night by relays of dressers for three or four days; and his progress on the whole was exceedingly rapid. The wounds kept sweet. His temperature was hardly ever above 100°. On the sixth day he was sitting up in bed playing the concertina. On the tenth day he was for a few minutes in the fresh air on the nurse's knee; and he is now out every day.

Such a recovery from a double amputation of lower limbs after railway smash, especially with the added shock of a long journey, is a very rare occurrence.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

THE meeting of this Society was held on Tuesday, the 18th inst., Mr. George Pollock, the President, in the chair. Some very interesting specimens of rare forms of disease were shown; and Dr. John Williams did good service in calling attention to the question of the value of the iodine and sulphuric acid test for amyloid degeneration; his communication evoked a spirited discussion, in which Dr. Ralfe, Dr. MOXON, and others took part. At the conclusion of the meeting it was announced that the secretaries wished to have the names of gentlemen who desired to speak in the debate on syphilis, and that they would have the opportunity of speaking in order of priority of notice.

Mr. PEARCE GOULD showed, for Mr. C. HEATH, a Set of Artificial Teeth removed from the Trachea. The case was that of a young lady who wore two sets of false teeth, one consisting of the two right incisors, the other of the left central incisor and canine. She was subject to fits, and during the night, whilst asleep, swallowed both sets of teeth, one set passing into the larynx, the other into the œsophagus. When seen there was dysphagia, and some pain in the side of the throat. Mr. Heath was able to feel one set in the œsophagus by means of a probang, and endeavoured to extract it with forceps. Failing this, an œsophageal bougie was passed down to the stomach, and the obstruction removed. Slight dyspnœa remained, which on the third day became marked, and on laryngoscopic examination the other set of teeth was seen in the trachea, one inch below the vocal cords. Tracheotomy was performed seventy-eight hours after the accident, and the set of the two incisors removed, and the same evening the other set was passed by stool.—The PRESIDENT inquired how the dislodgment of the teeth was accounted for, and mentioned the importance of false teeth not being worn during sleep.

Dr. JOHN WILLIAMS showed two pieces of Dysmenorrhœal Membrane, one of ordinary character, the other of apoplectic form. He remarked that it was stated in books that the dysmenorrhœal membrane gave the so-called amyloid reaction with iodine and sulphuric acid. In both these specimens it was readily produced, but on examining closely he found that it was only the thin margin which was so stained, and that the fluid around it had also the same blue colour. Puzzled by this, he tried mixing the iodine and sulphuric acid alone, and got a distinct blue colour. He was aware that Virchow knew of this reaction, but distinguished it by stating that when thus obtained the colour was in granular form. As the reaction is trusted in and much employed abroad, he thought it worth while to show its fallacy.—Dr. RALFE had seen Dr. Williams's experiments, and had been led to try some experiments bearing on the question of the reaction of iodine and sulphuric acid, and the action of iodine on various albuminous bodies. As to the reaction of iodine with sulphuric acid, this seemed to depend on vaporization of the iodine by the great heat produced on mixing strong sulphuric acid with the watery solution; hence it occurred first at the line of contact of the two fluids. On trying the effect of iodine on other bodies, he found that, as Virchow stated, albumen gave no colour, even after long standing; pure fibrin gave a mahogany colour with the aqueous solution in a few minutes; casein gave a red colour indistinguishable from that obtained with amyloid material; and a solution of syntonin a red colour. Dr. Ralfe also referred to the different opinions as to the chemical constitution of "lardacine" or amyloid material.—Dr. MOXON, when using iodine to stain organs, had found the so-called amyloid reaction in several strange places, once deep in the substance of a tumour of epithelial type, in a part corresponding to the rete mucosum of the skin; and also in examining urine he had observed staining of the epithelial cells from the bladder. He thought that the term "red" or "mahogany red" scarcely expressed the colour so well as would "walnut-wood" or "purple." As to the lardaceous matter, no one had ever approached a chemical investigation of its nature, as no solvent for it had been found.—Dr. GREEN thought the facts brought forward by Dr. Williams very important, as tending to show that the reaction was of comparatively small value. The observations of Dr. Ralfe had an important bearing on the chemical constitution of the lardaceous substance.—Dr. GREENFIELD observed that the reaction usually relied on as distinctive of lardaceous matter was not the violet or blue colouration, but the fact of brown or reddish-brown colouration, which was changed to blue on addition of sulphuric acid. This blue colour was now well known to be produced by the precipitation of particles of iodine by the sulphuric acid. He referred to the investigations of Hayem on the constitution of lardaceous matter.—Dr. WICKHAM LEGG mentioned that Kühne and Rudneff had been able to get rid of the extraneous substances by the action of the gastric juice and dilute acids, and of fat by ether, and subsequently dissolved the lardacine in dilute ammonia. The blue reaction could be produced by a very dilute solution of sulphuric acid.

Mr. RICKMAN GODLEE exhibited a specimen of an Anomalous Blood-cyst removed from the female breast, which, on examination, turned out to be cancerous in its nature. The patient was sixty-three years of age. A tumour had been removed from the breast twelve months before by caustics, but recurred. After removal the tumour was found to consist of a large cyst, with a fibrous capsule, containing what appeared to be blood-clot. On examination, this was found to contain altered blood, and tubes which closely resembled in shape and arrangement those of the breast during lactation, and on more careful examination it was found that these were arranged on each side of large blood-vessels, from which fibrous septa enclosing vessels passed between them. Another bilocular cyst of exactly similar structure was found in the axilla. The interest of the case lay in the abnormal development of the cancer, for such it seemed to be, and the relation of blood-cysts to cancer, since it was generally held that blood-cysts were related to forms of sarcoma. The close correspondence of the tumour in structure to healthy breast was also of importance.—A case of large cystic tumour containing blood, which was tapped and subsequently recurred as a solid growth, was referred to by a member.

Dr. GREENFIELD exhibited a specimen of Stenosis of the Mitral and Tricuspid Valves of the Heart. The specimen was from a female forty-three years of age, married, who died from apoplexy resulting from thrombosis of the basilar and middle cerebral arteries. The heart was enlarged, weighing thirteen ounces, the enlargement being almost

confined to the cavities of the right side, which were much dilated and hypertrophied, the left auricle being also much dilated and hypertrophied. The tricuspid orifice was considerably narrowed by the adhesion of the margin of the valve flaps, so as to produce a half-moon-shaped orifice, measuring three-quarters of an inch by half an inch in diameter. The mitral orifice was very small, an oblique funnel-shaped opening being formed by the adhesion of the margins of the valves and of the thickened chordæ tendineæ. The left ventricle was very small, and free from hypertrophy. Dr. Greenfield remarked on the rarity of the occurrence of tricuspid stenosis, the disease being so rare that Dr. Hayden had been able to find only fifteen cases on record. In all these cases stenosis of the mitral valve coexisted. The absence of all signs of chronic congestion of the lungs and of the kidneys in this case was certainly remarkable; he thought it might be due to the limitation of the blood-stream by the narrowed tricuspid orifice. The possibility of diagnosing this condition was an interesting question; he thought it very doubtful whether any diagnosis could have been made in this case had the opportunity for examination occurred. He referred also to the question of the causation of the disease.—Mr. BARKER mentioned that he had recently made a post-mortem examination on a case in which the three valves were similarly adherent, the orifice only admitting two fingers.— Dr. BURNEY YEO inquired whether Dr. Greenfield considered the absence of pulmonary congestion due to the limitation of the blood-stream, seeing that the right ventricle was dilated and hypertrophied.—Dr. GREENFIELD said that he considered that the pulmonary congestion was diminished by the general limitation of the blood-stream.—Dr. TAYLOR mentioned a case of tricuspid narrowing associated with mitral stenosis in which a presystolic murmur existed which could be distinguished from that of the mitral stenosis.

Dr. MOXON showed a specimen of Pleurisy invading the Lymphatics of the Lung. It was from a man twenty-nine years of age, the captain of a ship, who was seen shortly before his fatal illness in good health. Three days later he was found in a sinking condition, half unconscious, with pulse 160, respiration 60, and hiccough, and died rapidly. At the post-mortem, ten hours after, the body was found already decomposing, the blood was of dark colour, and staining the tissues, and the peculiar odour found in blood-poisoning was present. The liver was slightly fatty, but the only morbid condition discovered was that there were three ounces of sanguineous pus in the right pleura. On further examination the network of lymphatics of the lung was found to be filled with pus, which oozed from them on section, this condition extending as far as the bronchial glands. The lymphatics of the pleura were unaffected. At the posterior surface of the right bronchus were two patches of coal-black colour, and the bronchial glands behind this were much diseased. The case was of interest as being similar to two which he had exhibited a year or two ago, in which intense pleurisy invaded the lymphatics of the lung, and in both these cases there was obstruction of the bronchial glands.—Dr. GREENFIELD thought the case of much interest from the fact of rapid death from obscure causes. Such cases, in which no explanation could be given of the origin of the immediate cause of death, were not infrequent, and in every case it was desirable that all the possible conditions should be investigated. He inquired as to the precise condition of the pleura, whether the case was one of ordinary acute pleurisy, and whether the bones, joints, and head had been examined, in order to exclude the possibility of some source of blood-poisoning. He inquired also what was Dr. MOXON's opinion as to the pathological explanation of the case.—Dr. DOUGLAS POWELL also inquired whether the obstruction of the bronchial glands would not be rather beneficial than otherwise in such a case, and referred to the occurrence of such a condition of the pleura in cases of injury to the head.—Mr. BUTLIN thought it might have been a case of blood-poisoning, of which the affection of the pleura was the first manifestation, in many cases it being very difficult to discover the source of the infection.—Dr. MOXON replied that the brain was not examined, as there were no cerebral symptoms. The symptoms were those of acute pleurisy. He thought that the nutrition of the texture of the lung was probably impaired by the bad drainage due to obstruction of the bronchial glands, and that then it was rendered liable to undergo more intense inflammation. As to the suggestion of blood-poisoning, he quoted the opinion of Dr. Wilks, that in cases of inflammation of the pleura from blood-poisoning the process was always secondary to affection of the lung-tissue.

Dr. WICKHAM LEGG exhibited a specimen of Cancer of the Liver and Pancreas, with polypi in the portal vein, from an old woman who had been under the care of Dr. Church. There was no jaundice. Post mortem, there was nothing special except that the hepatic and portal veins were dilated. There was a polypoid growth in the pancreatic duct adherent to its wall, and there were also polypi in the right branch of the portal vein, all of which arose from cancerous nodules in the right lobe of the liver. With reference to the occurrence of cancer of the head of the pancreas, in all those cases which he had examined the growth arose from the pancreas itself, and not from the glands in its vicinity.

Dr. GOODHART brought forward a fresh specimen of Tubercle in the Liver, in which an extreme degree of nodulation existed. The case was one of laryngeal phthisis, with tubercle in both lungs and rapid caseation, at the age of thirty-two. The liver was large and very dark in colour, with nodules scattered all over it, at first sight looking like pyæmic or cancerous nodules; but on section it was evident that it was extreme tuberculosis, not so diffuse in form as in leukæmia, but much more so than in grey granulation. Two cases shown by Dr. Coupland and Dr. Murchison were referred to; in the former the condition closely resembled that in this case, a great part of the growth having the fibrous and cellular character of cirrhosis.—Mr. WAGSTAFFE suggested that the specimen should be referred to the Committee on Morbid Growths, which was agreed to.

Dr. CAYLEY showed a specimen of Cirrhosis of the Liver from a child six years of age. The symptoms came on with acute ascites six months before death; paracentesis was performed thrice, and fluid did not collect again after the third operation. There was subsequently chronic dirrrhœa, and fatal hæmatemesis at last. The cirrhosis was very marked, and there was no other notable morbid condition. As to the cause, there was no reason for suspecting the influence of alcohol, as the mother objected to giving the children any alcoholic drinks, nor was syphilis proved to exist. Dr. Cayley believed that most of the cases of cirrhosis of the liver in children were due to hereditary syphilis; in one case which he had seen there was distinct syphilitic history; alcohol requires a long time to cause cirrhosis.

Mr. BROWN showed a specimen of large Cyst of the Choroid Plexus from a child four months old. The cyst sprang from the choroid plexus of the left lateral ventricle, and distended and filled the ventricle, pushing up the corpus callosum, and becoming adherent to the dura mater. The cyst was of the size of a duck's egg, and contained clear serous fluid. There was prominence of the corresponding parietal region. The principal symptoms were persistent vomiting, which lasted for ten days, and some lachrymation of the left eye. The child was the youngest of six, one of whom died of marasmus, and another of tubercular meningitis.

The meeting then adjourned.

The debate on Syphilis is to be commenced at the next meeting of the Society on Feb. 1st.

CLINICAL SOCIETY OF LONDON.

THE annual general meeting of this Society was held on the 14th inst., Sir William Jenner, President, in the chair. The proceedings commenced with the reading of the Report of the Council by one of the secretaries, followed by the balance-sheet, presented by the treasurer, Dr. Greenhow. The report showed a satisfactory increase in the number of members, and also the sound financial state of the Society.

Dr. GREENHOW then introduced a patient presenting such marked pigmentation of the skin that he had been sent to the Middlesex Hospital as a case of Addison's disease. He was a pauper, about sixty years of age, and doubtless had long been exposed to the influences of dirt and vermin. Most of the regions chiefly affected in Addison's disease were here very deeply pigmented, but some symptoms, which might be attributed to constitutional dis-

turbance—e.g., vomiting and breathlessness—were accounted for by cardiac disease. Possibly some cases erroneously described as Addison's disease, without supra-renal affection, were examples of this kind of pigmentation, which Dr. Greenhow proposed to call "morbus erronum," or "vagabond's disease." The discolouration, however, was more mottled and less uniformly distributed than in Addison's disease. Moreover, the face and hands were the least discoloured, and repeated applications of detergents had diminished considerably the depth of tint.—The PRESIDENT inquired whether there was any pigmentation of the buccal mucous membrane or of the eyelids.—Dr. GREENHOW replied that there was faint pigmentation of the buccal membrane, and remarked that this was not peculiar to Addison's disease.—Dr. SOUTHEY pointed out that the most intense pigmentation occurred in those regions which were most readily subjected to irritation—e.g., over the hips and in the scapular regions. This localisation of pigmentation in old-standing cases of pediculosis was insisted on by Hebra.—Dr. GREENHOW added, that ten years ago he exhibited a woman presenting the same intense form of pigmentation.

Dr. DOWSE then read notes of a remarkable case of Thrombosis of the Cavernous Sinuses. The patient was a robust, well-built adult, who received a blow on the occiput by being tripped up. He was slightly stunned, but able to walk home. No immediate cerebral symptoms followed for three days, when severe headache set in. The attacks of headache were varied by seizures of faintness and shivering; he complained also of perversion of the sense of taste. The day before he came under Dr. Dowse's care his vision became cloudy, and in a few hours totally lost. The other special senses were good; cranial and spinal nerves normal; the pupils were dilated; the optic discs were swollen, and patches of retinal hæmorrhage were discovered, the veins being large and tortuous. Death supervened upon an attack of erysipelas of the scalp, and the day before death it was noted that there were paraplegia and coma, but no convulsions or rigidity; the temperature rose to 104·2°, and the pulse to 160. No fracture of the skull was detected after death, but both cavernous sinuses were found completely occluded by fibrous clot; the central ganglia were healthy; there was recent hæmorrhage into the right anterior cerebral lobe, which contained a clot surrounded by punctiform hæmorrhages; at the base of the brain was a protrusion of cerebral substance, apparently due to the presence of the clot. Dr. Dowse further referred to the results of the microscopical examination of the brain, and remarked upon the probable greater frequency of thrombosis of the cerebral sinuses than was supposed. Hæmorrhage into the anterior lobe was rare.—The PRESIDENT remarked that punctiform hæmorrhages could only arise from obstruction to the outflow of blood from a part. In all such cases there is evidence of thrombosis. He had seen it sometimes occur in laceration of the brain from injury, where a vein had been torn through.—Dr. BUZZARD inquired what was the nature of the "outgrowth" at the base of the brain. The general tenor of the symptoms pointed to tumour of the brain.—Dr. DOWSE said that the apparent tumour was simply a protrusion of cerebral substance due to the hæmorrhage.—Dr. GOWERS asked whether any observations were made as to the exact nature of the subjective sensations of taste experienced by the patient; for the "tumour" was apparently seated nearer to the olfactory than to the optic tract. Was only that portion of the sense of taste with which smell was concerned the seat of perversion?—Dr. DOWSE said that the sense of taste was not entirely absent, but was perverted. There was no impairment of the sense of smell.—Mr. HULKE wished to know whether there was pulsation of the orbital tissues closely simulating aneurism—a symptom which was often described in cases of thrombosis of the cavernous sinus. He had himself seen it, and thought it explained by the diastole of the ophthalmic artery being accompanied by tension of the fluids in the tissues of the orbit.—Mr. HOLMES remarked that in many of these cases a loud murmur could be heard with the stethoscope.—Mr. HULKE added that the case he had in mind was that of a female under the care of Mr. Bowman several years ago. In her case the murmur was exceedingly marked.—Dr. DOWSE said that these signs were absent in his case. No stethoscopic examination of the head was made.—In reply to the President as to the nature and seat of the murmur, Mr. HULKE said that it was rhythmical with the pulse, and was attributed to compression of the carotid artery in the sinus, probably intensified by its conduction through the bones of the skull.—Dr. DOWSE said that in a case of thrombosis of the cerebral sinuses recently brought by him before the Pathological Society these murmurs were present.—Mr. SYMES THOMPSON said that he also remembered the case alluded to by Mr. Hulke. The murmur, which could be heard over the whole head, was so loud as to be attributed to aneurism. The case occurred eighteen years ago.

Mr. VENNING then read notes of a case of Congenital Tumour, interesting from the question as to its diagnosis, and also from its rarity. The tumour grew on the right buttock of a male infant eight and a half months old. At birth it was of the size of a pigeon's egg, and it had increased to the size of a Tangerine orange when first seen by Mr. Venning. Its surface was of a deep red colour; it was elastic, but not pulsatile. It was thought to be a deeply-rooted nævoid growth, and it was decided to remove it in two portions, by means of ligatures. This was accordingly done, but the tumour increased in size, was very elastic, and became tense whenever the child cried. Mr. Holmes, who saw the case, now thought extirpation should be attempted. An exploratory puncture with a grooved needle resulted only in the escape of a drop of blood. The tumour shelled out easily, and the child made a good recovery. It was found to be composed of very fine adipose tissue. Fatty tumours in infants are rare, and the possibility of their being mistaken for nævi has been pointed out by some surgeons. Mr. Venning referred also to similar cases recorded by Mr. T. Smith, Mr. Gay, Mr. Athol Johnston, and Mr. G. Pollock.—Mr. HOLMES thought there was too much of a habit of putting down all congenital tumours as nævi; many, however, were not vascular at all, and were mere outgrowths of cellular tissue. He had seen several such in the neck, and in the neighbourhood of the thyroid gland. Some of the softer varieties were of very rapid growth. In the present case the rapidity with which the tumour grew after the application of the ligatures was so great as to suggest malignancy. Exploratory puncture or incision was valuable as an aid in diagnosis. In reply to the President, Mr. Holmes stated that he could not account for the tension produced in the tumour every time the child cried. He at first thought it due to contiguity to the rectum, but it had no relation to the gut.—Mr. NORTON spoke of exploratory puncture for the removal of portions of a growth, in order to ascertain its nature, and inquired whether that procedure was adopted in this case.—Dr. GOODHART asked if any fœtal or mucous tissue occurred in the growth, as that might account for its rapid increase in size. He related a case of congenital tumour of the thigh which was of this nature, only furnished with blood-spaces, allying it to the nævoid growths.—Mr. MORGAN mentioned that Mr. T. Smith had only seen two similar cases, in each of which the tumour sprang from bone.—Mr. VENNING, in reply, said that he thought the tension of the tumour on expiratory efforts was due to the extreme vascularity of the skin covering it. Exploratory puncture might have been had recourse to earlier. No mucous tissue was met with in the growth.

The meeting then adjourned.

Reviews and Notices of Books.

Phthisis. By AUSTIN FLINT, M.D. London: J. and A. Churchill, New Burlington-street.

THE reputation of the author renders the appearance of this work more than welcome, while at the same time imposing on it the trial of sustaining his recognised position.

Eschewing microscopic pathology, with its attendant inducements to theorise, Dr. Flint has devoted himself to the clinical study of the disease, and, from a total of 670 cases, has, by careful grouping and skilful analysis, ultimately evolved the conclusions which close observation seemed to warrant. Thus, while contemplating the excessive liability to phthisis between the ages of twenty and thirty

years, he decides that the "explanation involves of necessity an intrinsic predisposition or tendency which we cannot explain."

Of the effect of occupations, it is said that "those which involve especially confinement within doors and sedentary habit, are more than half the whole number of cases."

The causative influence of antecedent pleurisy, pneumonia, and bronchitis, asserted by Niemeyer and others, is not corroborated by these clinical observations, and the occurrence of early hæmoptysis is regarded merely as prodromic.

The opinion "that malarial toxæmia affords a security against phthisis," which recently Dr. Williams in his Letteomian Lectures declared to be supported by some striking evidence, finds no acceptance in the practical investigations of Dr. Flint, and is opposed to the experience of Netley, and army medical officers generally. The question of congenital predisposition and hereditary tendency is carefully weighed. Inquiry into the various modes of treatment is undertaken in the cautious spirit embodied in the following words: "That phthisis may end favourably, irrespective of any special medicinal treatment, is a truth which, if I mistake not, is not sufficiently appreciated." The large proportion of recoveries, and also of "arrested or non-progressive cases," which occurred without medication are made to furnish a "natural history of the disease with reference to its intrinsic tendencies," which is of great value; while from others the relative efficacy of cod-liver oil, hypophosphites, and alcohol, is carefully deduced.

The book is essentially of that class which is becoming more and more rare—a bedside production, free from medical sensationalism, and worthy of its author.

Food: Its Adulterations, and the Methods for their Detection. By ARTHUR HILL HASSALL, M.D. Lond., &c. London: Longmans and Co. 1876.

THE author remarks in his preface to this work that the eighteen years that have elapsed since the appearance of his well-known "Adulterations Detected" have rendered it necessary to make so many additions and alterations that he has thought it better to adopt a new title for the republication. It is, in fact, a new book, embodying the mature experience of the author and the selected results of the scientific industry of others. No one living has a right to speak upon the subject of adulteration with such authority as Dr. Hassall, for, without wishing to undervalue the good work done by others before his time, it may be safely asserted that it is to his labours, first published in the pages of THE LANCET, and continued without intermission for a quarter of a century, that we owe the public interest in the subject, and much of the scientific knowledge in regard to it which has already done so much to check the evil.

It is needless to remark that we cordially agree with nearly all the views expressed in the volume before us. The author is never half-hearted in his opposition to adulteration, holding, we believe truly, that it is always and entirely objectionable. Even when harmless adulterants are used, and when the fraud committed is a small one, as in the facing of the better kinds of tea, the practice should be stopped, not only because it is part of a vicious system, but because it often, as in the case we have cited, affords facilities for more serious kinds of sophistication. Dr. Hassall even objects to the colouring of cheese with annato, though of course he does not call it adulteration, but this is, perhaps, stretching the principle almost too far. Pure and harmless colouring matters of inappreciable weight and not likely to cover real adulteration, could hardly be prohibited, and in this category we think may be placed the colours of butter, cheese, and spirits, and, when really innocuous, of sweets, pastry, and jellies.

Among the new features of the volume are preliminary chapters on "Food, its Function and Quantity," and on the "Preservation of Food." The former had better have been omitted. It is mainly compiled from Parkes, and, though good as far as it goes, is very imperfect. The relations of food to work and atmospheric temperature should never be omitted in the study of dietetics, and these are unfortunately far too complex to be condensed within the space of six pages.

The chapter on "Water and its Impurities" is in every respect excellent. The origin and significance of the contaminations of potable water are clearly and succinctly stated, and the sophistries of those who defend our present polluted supplies pointed out. Both the rival methods of water analysis are described, and that of Frankland and Armstrong very properly preferred as quantitative, and resting on a real scientific basis, though unfortunately difficult of execution; while that of Wanklyn, though rapid and easy and giving good comparative results, can only be described as qualitative. Many chemists will be grateful for the section on "Living Organisms," and the wise remarks on their significance.

The great bulk of the volume, more than eight hundred pages in fact, are devoted to what are ordinarily known as articles of food. It is obviously impossible to criticise the parts of the book in detail. We have examined it most carefully, and as far as possible without bias, and can truly assert that, considering its extent, it is a wonderfully accurate and complete manual. It is nothing to say that it is the best in existence, for no other now extant can be compared with it. It is simply essential to all who are interested in the subject, and will assist in an eminent degree the labour of those who are struggling with the hydra of adulteration. Of course much prominence is given to microscopic work. Dr. Hassall was the first to use the microscope in this good cause, and it is now, and must ever remain, the only and unerring guide for certain purposes; but the chemical methods are also numerous and good. In many cases quantitative as well as qualitative processes are given, and though some of them are necessarily complex, and all require the skill of a trained chemist for their successful performance, they seldom present any remarkable difficulties.

The last portion of the book is occupied with a "General Summary of Adulteration," under which heading we find definitions, lists of substances used in adulteration, remarks on the prevalence of the practice, on the excuses urged in extenuation of it, on its pecuniary and sanitary bearings, and on the remedies for it, including detailed criticism of the recent Act; concluding appropriately with a reprint of the Sale of Food and Drugs Act.

The whole book is well got up and printed, and the wood engravings, chiefly of microscopic drawings, are numerous and beautiful.

The Student's Guide to the Practice of Midwifery. By D. LLOYD ROBERTS, M.D.

THIS little work is exactly what its name implies—a guide to the practice of midwifery. The author has succeeded in accomplishing the difficult task of conveying a clear idea of obstetricy as a whole—an idea not very easily grasped by the student. This success is due to the fact that Dr. Roberts knows what to say, and how to say it, so as to stamp it on the mind of the reader. There is little in the work that we would wish altered; but we would have preferred a fuller description of the mode of applying the long, even at the expense of the space devoted to the short,

forceps; for Dr. Roberts, with most obstetricians of the present day, claims superiority for the long over the short instrument. The work is an excellent one. It contains nearly a hundred woodcuts, well executed, and generally accurate. The style is terse and clear, and reads easily and pleasantly.

The Monthly Microscopical Journal. No. LXXXV. January, 1876. Edited by HENRY LAWSON, M.D. London: Hardwicke.

THE present part, the first of the fifteenth volume, includes three papers of professional interest and one of a purely technical character. The first is an Improved Method of Applying the Micro-spectroscopic Test for Blood-stains, by Jos. G. Richardson, of the Pennsylvania Hospital, the gist of which we gave to our readers in the first number of THE LANCET for the present year; the second an Account of the Process of Reproduction in the Mushroom Tribe, by Worthington G. Smith, the pretty little Coprinus radiatus, so common on dung-heaps, being taken as a type; and the third an Account of the Absorption Glands of Carnivorous Plants, by Mr. Alfred Bennett, of St. Thomas's Hospital, who shows that these glands resemble stomata; they are found in Drosera and Pinguicula, and do not appear to have previously obtained the notice they deserve. The remaining paper is on avoiding the use of the Heliostat in Micro-photography.

THE SO-CALLED "FUNGUS-FOOT" OF INDIA.

A SHORT time since we gave an abstract of an important paper on the soil in its relations to disease, by Drs. Lewis and D. D. Cunningham, of Calcutta. Another essay by the same gentlemen on the Fungus- or Madura-foot,* is of equal importance; indeed to many persons it will prove of even greater interest.

The cause of the strange disease of the foot or hand which occurs in some parts of India, especially in Madura (whence one of its names), has been attributed by Vandyke Carter to a fungus which was cultivated by the Rev. Mr. Berkeley in this country, and was considered by him to be a hitherto unknown kind, and was named *Chionyphe Carteri*. Dr. Carter has lately given a complete account of the whole subject in a beautifully illustrated monograph.†

Although the evidence in favour of a fungus being the cause of the Madura foot seemed, from Carter's observations, to be very strong, opinions of a contrary kind have not been wanting, and various investigations brought before the Pathological Society in London during the last seven or eight years, by Bristowe, Moxon, and Tilbury Fox, were in many respects opposed to Dr. Vandyke Carter's conclusions. The essay by Drs. Lewis and Cunningham is the result of several years' study of this disease. After a very exhaustive examination, the authors entirely negative the view that the disease has a fungoid origin. They have found, indeed, in one variety (the dark form) a fungus, but this appeared to be entirely secondary.

Vandyke Carter distinguishes two varieties of the "Fungus-foot": the *pale* or *ochroid*, and the *dark*. To these Drs. Lewis and Cunningham are inclined to add a third, which, if not a variety, is at least a singular phase of one of the varieties: this is a form in which a number of pink granules are found. Now in the pale variety our authors found a peculiar degeneration of tissues, especially of the fat-cells; but they absolutely failed to detect any fungal elements in seven specimens of the disease. If they are trustworthy, then it is quite impossible to believe that a fungus can be the cause of the pale variety. The character for good work of the two observers becomes, then, of vital importance. These two gentlemen were selected eight years ago, by the Government of India, to investigate the statements made with regard to the fungoid origin of cholera. They were accomplished microscopists, and well acquainted with microscopic fungi. During the last eight years they have been constantly at work, in Calcutta, at microscopic examination of fungi and of morbid tissues in all sorts of diseases. They have written many valuable papers marked by extreme thoroughness and honesty of work. The discovery of the hæmatozoon by Lewis is known to all, and we alluded last year to a very striking paper, by Dr. Cunningham, on the Opium Blight, which he traced to a fungus. We may mention, that we hear from India Dr. Cunningham has now discovered the "resting spore" of this fungus, which, singularly enough, he identified just before the corresponding discovery of the resting spore of the Peronospora infestans (the potato fungus) was made in this country. We do not suppose, indeed, that there are any two men in England who can have been so constantly and for such a length of time engaged in this department of inquiry. We place, therefore, the greatest dependence on their statements, and we do not see what reply Vandyke Carter can make to their positive assurance that no fungus was found in seven specimens of the pale variety of Madura foot. It is true they had not an opportunity of examining other than preserved specimens, as the Madura foot is not seen in Calcutta; but still in preserved specimens of the dark variety the fungus has been found, so that there is no reason to think it would be destroyed in the pale form. In the dark variety, the two observers did, however, find a fungus, but this was in comparatively small amount, and was mixed up with great degeneration of tissue (not, however, especially implicating the fat, as in the pale variety) which appeared to be the primary disease. Cultivation experiments with the fungus failed, and they leave the question whether the "Chionyphe Carteri" of Berkeley is a "true species" for future inquiry, though they are evidently sceptical on the point.

Perhaps the general result of the investigation will be best seen by the following quotation:—

"The reader of the foregoing chapters will have observed that three of the peculiar morbid products described as various stages in the development of a peculiar fungus—the assumed cause of the disease—have been very carefully investigated—viz., the roe-like bodies, the pink particles, and the black masses. The first of these we have shown to be fat in various modified forms; the second we found to be pigmented concretions, not the slightest trace of a fungus or of other vegetable organisms being present in either; and the third we have shown to consist of degenerated tissue, mixed to a greater or less extent with black pigment and fungoid elements."

The importance and interest of this question of the origin of the Madura foot are very great, because it is part of the great problem now so keenly discussed, of the part which low organisms play in the production of disease. Drs. Lewis and Cunningham do, in fact, in this paper, raise this larger question. Their researches have made them sceptical of the pathological action of the lower organisms; they deny that fungi or allied forms can act on healthy tissue, and really assert, therefore, that disease of tissue always precedes their appearance, and is really the primary disease. They even appear to imply that fungi will only act on matter already dead, and that, therefore, living parts can never be infected by low organisms. The wide and very difficult question involved here is likely to be warmly discussed for years, but it is certainly very significant that two competent observers, working in a climate of all others favourable to the growth and rapid development of fungi

* Appendix to the Eleventh Report of the Sanitary Commissioner with the Government of India. Calcutta. 1875.
† On Mycetoma, or Fungus-foot of India. By H. V. Carter. 1874.

and algæ, should grow year after year more sceptical of the power of these plants to produce diseases in men and animals, unless prior disease has opened the door for them.

Whatever may be the conclusion on this wider point, we believe that they have shown good reasons for doubting the correctness of the view which attributes "Madura foot" to the action of a special fungus.

REPORT
OF
The Lancet Commission
ON
LUNATIC ASYLUMS.

WANDSWORTH ASYLUM.

THE HOUSE AND ARRANGEMENTS.

IN a Report addressed by the Committee of Visitors to Quarter Sessions in 1859, on the subject of a proposed enlargement of this asylum, we find the following remarks:—

"The Committee are aware that medical opinions have been expressed in favour of asylums not containing more than 600 patients, or even a smaller number, as the most suitable for efficient supervision; but some of those were given when the number of large asylums was very small, and the system of superintending them not so well understood as at present. Indeed, the number of very large asylums is still small, as is also the number of medical men who can speak on this subject from their own personal experience. *The Committee have found no inconvenience in the superintendence of the Surrey Asylum, which for a long time has contained more than 900 patients; and they are satisfied that, under judicious regulations, the patients in an asylum containing more than double the number may be maintained not only under proper care and treatment, but that they will have advantages in classification, and in constant medical supervision, to some extent, over patients in small asylums, and to a very great extent, it is believed, over those in wards connected with union-houses.*"

As regards the superiority of asylums, *cæteris paribus*, to workhouses there can be no question; but with respect to every other assertion in this statement we join issue. It is interesting to encounter an erroneous opinion expressed with so much confidence. The sentences we have printed in italics are, moreover, noteworthy as showing how closely the position assumed by a visiting committee sixteen years ago resembles that maintained by at least some committees at the present moment. We think there is reason to believe that the magistrates of the county south of the Thames have learnt wisdom. In any case, the tokens of lay "keepership" are not so manifest at Wandsworth as elsewhere. We confess it was not without misgiving that we found the medical superintendent styled "resident physician"; but, so far as it is possible to judge of practice by the rules laid down for its guidance, the authority of the medical superintendent seems to be well defined, and neither the Committee nor its officials appear to hamper his treatment. In a copy of the rules printed in 1873 is the following:—

"He [i.e., the medical superintendent] shall be responsible for the management and the condition of the asylum, and shall superintend the whole of the medical and moral treatment of the patients and the general arrangements of the establishment, subject to the rules of the asylum *and the direction of the Committee*."

The words in italics detract greatly from the value of authority entrusted to the medical superintendent; but in practical fact we do not, as we have said, detect the proofs of interference. Meanwhile, there are some discrepancies in the "Regulations" and "Orders" not entirely satisfactory. One of these relates to a matter of the first moment, and should receive attention. Under the head "The Matron" we find:—

"She shall cause every patient becoming dangerous or annoying to others to be quietly removed from the day-rooms or galleries; and shall immediately report the circumstance to the medical officer on duty, who alone shall have the power of imposing restraint or seclusion."

Among the "Orders" to "Attendants" stands this:—

"2. When coercion is necessary, it is not to be attempted by an attendant single-handed. An excited patient will often resist with much violence a single person, but will submit quietly in the presence of two or more. *Every instance of coercion or seclusion* is to be immediately reported to the medical officer on duty."

It is manifest that the widest possible difference, amounting to an open contradiction, must exist between a rule which prohibits anyone except the medical officer from placing a patient in seclusion and an order which requires the attendant, *after* he has secluded a patient, to report the fact to a medical officer. No attendant should, under any circumstances, be permitted to place an inmate in seclusion without the express order of a medical officer. The act of seclusion is in itself extreme coercion. The duration of the confinement is another matter, not affecting the fact. We understand the rule in Surrey to be that no attendant may seclude. If that be so, Rule 2, in the instructions to "attendants," ought to be expunged. It must produce a wrong impression, and *may* work mischief. No subordinate ought to be in a position even to *threaten* a patient with seclusion, much less to lock him up, and then report it.

The building on Wandsworth-common is ill-adapted for an asylum attempting the work of a "hospital." There is evidently a widespread mistake as to these old and badly constructed buildings; and it is essentially an economic blunder. They would answer the purpose of homes for chronic and imbecile cases fairly well. The new erections, containing as they do the greatest air space—sadly deficient in the older houses,—the best fittings, and generally embodying the results of experience and the latest improvements, should certainly be employed as hospitals for acute cases, while the older houses are used for the incurable and chronic. As it is, the effect of drafting quiet cases to such places as Brookwood—or the workhouse asylums at Caterham and Leavesden—is to waste power and opportunity, at the same time, leaving the wards of an asylum like Wandsworth crowded with excitable cases, which cannot be effectively treated within its walls. The construction, the manning with attendants, and the general arrangements of a hospital for acute cases of mental disease are essentially different from, and necessarily more costly than, those required in an asylum for harmless lunatics, imbeciles, or idiots. This is to some extent recognised in Surrey, but there has been, we fear, some misdirection in policy. Instead of the new houses being appropriated as hospitals for acute disease, they have been filled with quiet cases taken from the older asylums, and patients withdrawn from the licensed houses with a view to save expense. The procedure should have been exactly the reverse. New and severe cases which it may be possible to cure should obviously have been placed in the improved houses, and every effort devoted to their rapid treatment, if only to avoid the permanent cost of maintaining them as chronic cases. The old and badly constructed asylums—of which Wandsworth is a striking example though greatly improved within the last three years—might then have been used exclusively for cases which do not require much more than humane guardianship and comfortable quarters. Had this policy been pursued, the erection of new buildings for single rooms, and other expensive alterations, which have been required at Wandsworth might have been avoided. No doubt, in a county where there exists sufficient accommodation, of the best *hospital* class, for acute cases, it may be wise to build new blocks, especially for chronic cases, and the outlay entailed will be comparatively small—though we doubt whether any asylum could possibly be erected and furnished more economically than the new buildings at Brookwood, which are marvels of cheapness and efficiency. But Surrey is not, so far as its older asylums are concerned, in the position of a county having hospital accommodation equal to its needs, and we venture to think true wisdom would suggest to the magistrates of Surrey the expediency of making Brookwood the

hospital and appropriating Wandsworth as an asylum for chronic and incurable cases. Of course no such arbitrary or wholesale separation of cases as would leave the wards of any asylum—hospital or chronic refuge—without the ameliorating influence of some quiet cases associated with the more turbulent would be prudent. But short of this extreme measure we are convinced that the acute cases should be treated apart, in circumstances and under conditions especially favourable to their recovery. We sometimes hear strong remarks as to the depressing influence which would be exerted upon medical officers by having scarcely any cases under their treatment which were hopeful. Against this argument must be set the wonderfully stimulating effect of feeling that an institution is a *hospital*, properly so called, and able to enter the lists with any institution which selects its cases on the ground of curability—as, for example, Bethlem,—in scientific competition to produce the largest number of "recoveries" and the smallest number of "re-admissions." We venture to think that, looking at the matter from the Quarter Sessions' and ratepayers' point of view, a county would reap great advantages from the arrangement we suggest, would more readily overtake the rapid increase of insanity among the population, and, in the long run, save money in the matter of building and furnishing. But of these considerations we shall have more to urge in the sequel.

Wandsworth is by no means a neglected house. Much has been done, and more is promised, to make it efficient. We do not propose to touch largely on details, but shall content ourselves with pointing out some of the more noticeable evils and defects which seem to call for remedy. In the first place, we would draw the attention of the Visiting Committee to the need of a little more liberality. In very small matters especially, it is paltry to be mean. For example, in the new block of single rooms, was it worth while to give fair-sized windows to the frontage of the building, and save a few hundreds by dimly lighting the rooms at the back with windows barely half the size? Then, again, might not the painting and decorating be expedited, so as to make the interior throughout more cheery and homelike? We confess to some disappointment with the appearance of the wards after the promise which has been long extant of rendering this asylum more presentable. The walls are to a very large extent still bare of pictures. There is a lack of warm colouring. The single rooms generally look wofully comfortless, and scarcely any of the wards are well furnished. None can be described as pleasure-inspiring. There are very few musical instruments or appliances for amusement in the wards. The ornaments are meagre and the surroundings generally not attractive. Probably it would require a somewhat generous, perhaps even lavish, outlay to make the asylum really comfortable; but, cost what it may, the object should be attained, and without delay. Flowers, plants, aviaries, pianos, bagatelle-boards, ornaments, coloured prints, and extensive wall decorations are sadly needed; and, while fully recognising what has been accomplished, we must urge the want of greater expedition and a more liberal hand. Then, again, the atmosphere of the asylum is by no means satisfactory. It abounds with faint but offensive odours; certainly not the result of any lack of care or cleanliness. We make full allowance for the circumstance that our visit was made in weather which necessitated the closing of doors and windows. Nevertheless, the sculleries, sinks, and drains require careful examination throughout. Can it be possible there is stint in the use of water for bathing, washing, or flushing purposes? No asylum of the class can be worked with less than fifty or sixty gallons per head per day of the resident population. The site lies high, and the water runs away rapidly, requiring frequent and almost profuse flushing to cleanse the drains. The dormitories are better than the day rooms, but some of them strike a little cold, although the building generally is well heated. The airing courts are fairly good, and still undergoing improvement. The attendance seems well organised, and by a judicious system of visiting the wards unexpectedly by day and night, and inquiring into the proceedings of the officials, the medical officers apparently succeed in preserving good order. We think this system of watching the attendants admirable, and we are glad to learn that the medical officers willingly exercise the same jealous supervision over the manner in which the attendants discharge their duty to the patients that would be exercised by gentlemen over the grooms that feed their horses, or the keepers of their dogs and game. This is a duty the medical officers of asylums everywhere owe to themselves, not less than the patients confided to their guardianship. *Everywhere* attendants, we are convinced, maltreat, abuse, and terrify patients when the backs of the medical officers are turned. Humanity is only to be secured by turning suddenly upon the officials, and no man need feel himself demeaned or aggrieved by being asked to bestow that care on the poor helpless creatures entrusted to him which he owes to the dogs in his own kennel. By the way, what can be the meaning of the rule that stands at the top of page 13 in the printed book before us, to the effect that when the medical superintendent visits the department for females "he shall be accompanied by some female officer of the asylum?" Surely this is a mistake. The purpose of the visit is to ascertain the condition of the wards and bedrooms. Nothing can make the inspection necessary except some real or supposed neglect of duty on the part of the officials, yet the medical officer is to call up one of those very officials to accompany him in his visit, which, according to the rule, is to be made unexpectedly at night! The instruction is simply absurd, and should be at once expunged. The Committee must have relied on its inherent sagacity, when such a nugatory direction was framed. It is strange the Commissioners in Lunacy, or the officials advising the Right Hon. Robert Lowe, did not draw attention to the nonsensical regulation before the code was passed and officially signed. We are glad to learn that an efficient system of night-watching by inspectors walking on a "beat" through the epileptic dormitories on each side has just been inaugurated. A very effective precaution has also been taken against the danger from suffocation to which patients of this class are exposed, by the provision of loosely-stuffed hair pillows, through which they can breathe for some time even if the face be buried in the cushion. The staff of ordinary attendants is in the proportion of about one to eleven patients. The asylum will now accommodate 1078 inmates. The weekly charge is 9s. 7d. per head. Speaking generally, we consider the patients at this asylum well cared for, and considerately controlled. Their appearance denotes efficient nursing, a sufficient dietary, and fair, though withal somewhat dingy, clothing. The refractory patients do not appear either irritated by surroundings, cowed into subjection by terrorism, or enfeebled by the use of drugs. There are a good many aged and bedridden patients, and many wet and dirty cases, but we saw nothing to indicate neglect or unhealthiness. The chapel is much too small, old-fashioned, and gloomy. It might with advantage be applied to some other purpose, and a detached building in the grounds would replace it advantageously. There is a cottage hospital, but, from some inscrutable cause, we trust not parsimony, it is unprovided with a disinfecting chamber or a laundry, and is, therefore, only partially available for perfect isolation in the event of epidemic disease. There is a fairly large recreation hall, used by day as a needlework room for the female patients. It is fitted with a suitable theatrical stage. The entertainments, including balls and performances, are frequent, and we believe the authorities contemplate an extension of the system of associated amusements. The proportion of patients employed is fairly good and improving. The precautions against fire are ample, but we think the arrangements might be modified. For example, the jet-pipes should be kept attached to the hose, and the latter connected with the hydrants, as at Hanwell. We cannot pass from this branch of the subject without warmly acknowledging how much has been done to improve the asylum and to mitigate the evils incident to its defective original construction. The struggle with circumstances has been earnest and intelligent, the reforms accomplished are great and of the highest value. But the cry is still for more and more sweeping, amendments. It seems ungracious to dwell on faults where an unwearied endeavour to remove evils, redress grievances, and supply deficiencies is apparent, but the welfare and wise treatment of the insane is everywhere a matter of vital moment and urgent public concern, and it is with the view of strengthening the hands of those who feel the need of progress, and entreating the consideration of others who fail to perceive the pressing call for improvement, that we strenuously plead for greater enterprise and liberality.

TREATMENT.

The treatment at Wandsworth is intelligent and humane. The use of drugs is wisely restricted, and reliance upon moral measures in preserving order and promoting recovery is the first recourse. Restraint is neither wholly abandoned nor extensively employed. Gloves are occasionally in use, and *seclusion* has been considered necessary and administered, though not recklessly, as the following table will show:—

	Persons.	Instances.
1865	33	—
1866	36	—
1867	39	—
1868	29	—
1869	25	52
1870	31	71
1871	41*	—
1872	54†	—
1873	19‡	—
1874	20	—
	327	

	M.	F.	Persons.	M.	F.	Instances.
1875 ...	6 +	18	= 24 ...	13 +	32	= 45

We must repeat that "seclusion" forms a very fair test of the efficiency of the general service and moral treatment in any asylum, more particularly when, as at Wandsworth, the medical superintendent is reluctant to resort to this expedient. The failure to control a turbulent patient by moral influences, where it is desired that these influences should suffice, commonly indicates either a clumsy discipline, an unwise classification of cases, or something amiss in the manner in which attendants discharge their onerous and most difficult routine duties. A judicious and useful practice of weighing patients on admission and at discharge has been introduced, and speaks well for the management. The gradual extension of liberty to patients is a principle of the treatment, and walks beyond the asylum grounds are organised under proper restrictions. The chief obstacles to a thoroughly scientific treatment at Wandsworth obviously arise from the defects of the building and crowding in some of the wards. The county would benefit financially and the recent cases would gain considerably in the probabilities of "cure," if, instead of increasing the number of inmates, the multitude could be reduced to such proportions as would permit the medical superintendent to carry out a more serviceable system of classification, and direct personal treatment. There are dark corners in some of the wards which it is impossible to light, but which should not on any account be used as day-space, and there are cases now thrown into the closest contact which should be kept widely asunder. It is vain to urge these points unless the magistrates are prepared to adopt a bold policy and apply the building and arrangements to their only legitimate use, and convert the asylum into a place of shelter for comparatively mild or chronic cases. As elsewhere, we passed the patients carefully under review in the wards—which is a better method of examination than crowding them into the halls for the purpose of formal inquiries,—and, with the exception of a few pronounced convalescent and about to be discharged, we do not, so far as a cursory scrutiny may be trusted, believe there are any patients now in the house improperly or unduly detained. It is not in the county asylums that such cases are to be found. There may be some in the licensed houses; but on this point we offer no opinion at present. Cases of the class may, and perhaps occasionally do, challenge notice among the patients received as "transfers" from these houses; but we are glad to know that every individual is most carefully examined by the medical superintendent on reception, and, if not proved to be insane, is in due course discharged. We shall have more to observe on the very difficult and perilous question of discharge in doubtful cases when we come to deal with the points of practical interest developed in the course of this inquiry, *seriatim*, at the close.

Surrey County Lunatic Asylum at Wandsworth.

Year.	Cases admitted.				Cases discharged.				Cases remaining on Dec. 31st.		Average number resident.	Analysis of recoveries.				Analysis of deaths.					Casualties reported.	
	Total number.	Transferred from other asylums.	Readmitted.	Deemed curable.	Recovered.	Relieved.	Not improved.	Died.	Total number.	Deemed curable.		Proportion per cent. on admissions.	Proportion per cent. on cases deemed curable. §	Proportion per cent. on average number resident.	Number, within six months of admission.	Proportion per cent. on admissions.	Proportion per cent. on average number resident.	Immediate cause: General Paralysis.	Average age at death.	Number, within six months of admission.	By suicide or accident.	
1865	122	24	6	47	42	...	16	65	814	36	913	34·5	41·17	4·60	?	53·27	7·1	10	50·	?	1	...
1866	131	...	6	44	41	...	14	65	915	22	907	33·8	51·25	4·52	24	53·71	7·1	24	44·4	11	1	...
1867	207	...	20	69	28	9	128	47	910	24	910	13·5	30·76	3·07	18	22·70	5·1	13	56·25	7	2	...
1868	145	...	10	48	45	5	33	58	914	24	912	31·	62·5	4·93	23	40·00	6·3	19	50·4	10	...	5
1869	123	5	3	52	34	2	25	66	910	19	910	28·	44·73	3·73	16	53·65	7·2	11	52·	10	...	5
1870	224	28	16	90	73	9	25	74	963	12	911	32·6	66·97	8·01	41	33·03	8·1	17	50·	18	1	4
1871	467	163	27	169	114	7	270	99	959	45	899	23·4	62·92	12·68	57	20·32	11·	17	52·	46	4	1
1872	233	7	24	121	99	11	31	85	958	33	864	42·6	59·63	10·27	55	37·06	8·9	20	47·	26	2	5
1873	239	25	20	129	92	23	60	84	936	41	946	38·4	56·79	9·72	46	35·14	8·9	23	46·23	17	4	5
1874	297	16	33	177	139	5	10	111	948	53	961	53·5	72·93	16·54	105	37·10	11·5	20	51·5	33	1	7
...	2197	?	165	946	727	?	612	754	...	...	922	33·1	54·97	7·81	?	36·59	...	173	...	?	16	32

§ This percentage is upon the number of cases "deemed curable" among those remaining on Dec. 31st of the previous year (11th column), and of cases "deemed curable" among those admitted during the current year (5th column).

The total of "curable" cases at Wandsworth bears a proportion of 43·05 per cent. to the total of "admissions." The percentage of "recoveries" on curable cases is 54·97. "General paralysis" accounts for 173 of the 655 deaths returned during the ten years, or 26·41 per cent. The mean proportion of deaths on admissions is 38·69. The recoveries number 33·1 per cent. on the admissions.

Our acknowledgments are due to Dr. J. Strange Biggs, the medical superintendent, and to Mr. Frederick H. Ward, the senior assistant medical officer.

[*Corrections in the Report on Colney-hatch Asylum.*—In the section on "Treatment," p. 67, first column, 14th line from the bottom, for "mischievous results of crowding similar cases *was*," read *were*. The total of "Instances" of *seclusion* in the table, p. 68, first column, should be 7754, instead of 7634.]

* "Owing to the numerous changes, and the exchange of quiet and harmless for noisy and violent patients, the tranquillity of the wards has been disturbed to an unusual extent."—*Report for* 1871.

† "During the last and present year, owing to the removal of 279 quiet, harmless, imbecile patients to Caterham, and to the admission of 719 new cases, many of them of the worst type, the necessity for seclusion has increased amongst the crowded and dangerous inmates. In two wards of the male division, occupied by the most violent class, the superficial day space is only 30 ft. and 35 ft. respectively for each patient; consequently, collisions are frequent and unavoidable."—*Report for* 1872.

‡ "Under all the circumstances—and it must be remembered that whenever the key is turned upon a patient it counts as seclusion—this return is favourable and creditable to the attendants. Immunity from seclusion can only be obtained by the help of a numerous and well-trained staff of attendants."—*Report for* 1873.

THE LANCET.

LONDON: SATURDAY, JANUARY 22, 1876.

THE discussion of the subject of Vivisection, after having been taken up with more fervour and zeal than discretion, and after having been continued on both sides in a fashion that did not reflect credit on the candour and sincerity of either, had already begun to languish when the Government determined to relegate its consideration to a Royal Commission. Pending the publication of their report there has been a sort of truce, and physiologists and doctors have not of late been vivisected in the morning papers. But the simultaneous appearance of a long communication from Mr. AUBERON HERBERT and another from the Baroness BURDETT COUTTS has lent a fresh impetus to the consideration of this subject. The question is approached from two different sides at once. There is the practical but regrettable one, in which the Baroness urges on Bishop CLAUGHTON the necessity for a very close inquiry as to the distribution of the funds collected by ministers of religion on Hospital Sunday, so as to prevent the alms and donations of their congregations from being appropriated to purposes which would be abhorrent to the feelings of the majority. On the other hand, Mr. AUBERON HERBERT, very inopportunely and with a characteristic impulsiveness, but in a spirit, nevertheless, that claims our sympathy, addresses himself to certain broad principles which, in his opinion, lie at the root of the matter.

Giving the precedence to the lady's communication, we would say, first of all, that it is founded entirely on a misapprehension, for the funds of a hospital are perfectly distinct from those of a medical school; they spring from different sources, and are applied to different purposes. Even assuming, which we are far from doing, that the practices which the Baroness regards with such loathing were pursued in connerion with physiological teaching at a medical school, what possible relation could this have to the sick patients in the hospital? Is the stream of charity to be diverted or dried up, and sick and suffering humanity to go unsuccoured and unrelieved on this account? We do not believe that so large-hearted and charitable a lady as the Baroness COUTTS can have contemplated anything so illogical and unjust.

Mr. AUBERON HERBERT recalls to his mind an expression of M. COMTE, the meaning and bearing of which he failed to appreciate at one time, but the force of which he realises now—namely, that all sciences in their working should be subordinated to a moral purpose. How could it ever be otherwise? he thought. But now he sees how. Science and morality are divorced, and that which has put them asunder is—vivisection! Mr. AUBERON HERBERT proposes a short course. In a matter of this kind the judgment of those who have examined, weighed, and deliberated must be disregarded. War is to be carried into the enemy's quarters. The supplies to the suffering poor and needy in our hospitals must be stopped, if necessary, until science is brought to her senses and ceases to repudiate her connexion with the moral side of civilisation. That Mr. AUBERON HERBERT is thoroughly sincere, earnest, and humane we have no doubt; that man should exercise the power he possesses over the lower animals aright and with a grave sense of his responsibility we have equally no doubt, just as we have also none that the difficulty of ascertaining what our exact duty in this matter is cannot be cut by the short process proposed by Mr. AUBERON HERBERT. Once begin to think the matter out, to go to the bottom of it, as it were, and you encounter difficulties innumerable. All life is a sacrifice, and the weakest go to the wall. There is the pursuit of sport, amounting to a strong instinct in most men, and its ends are purely selfish; and there is the pursuit of science, which may, no doubt, become an ignoble pursuit if it springs out of a selfish egotism, but the object of which is still indubitably superior to that of sport.

Because Nature is red-handed, and because there is so much material for a pessimist creed in the suffering and sorrow already existing in the world, are truly no reasons for our adding anything to the sum of it. But what if a man perceives or realises an amount of good, actual and potential, altogether beyond and out of proportion to the suffering he causes? A vegetarian might logically enough hold all destruction of life and infliction of pain unjustifiable; but one step beyond this, and the question arises as to what is and what is not justifiable. A humane man, who would not hesitate a moment about eating meat for his dinner, or spurring a jaded horse in pursuit of a doctor for his sick wife or child, might scorn to purchase relief of personal suffering, even great suffering, at the cost of inflicting extreme pain on a number of animals. But there has really been so much exaggeration, if not actually conscious falsehood, on the part of so-called anti-vivisectionists that it was time to learn the truth in regard to this matter, and to discover, if possible, the limits of justifiable experimentation. To that end a Royal Commission was appointed, and we strongly hold that the public should await the results of their deliberation. That man has the right, as he undoubtedly has the power, to take the lives of the lower animals is indisputable; that he is fully justified in doing so for scientific purposes, with a view to relieve suffering, prolong life, protect innocence, and bring guilt home to the criminal, seems to us equally clear; but we have always held that painful experiments for the mere purposes of demonstration and instruction should not be undertaken. Any way, we think these ill-considered communications from irresponsible and necessarily ill-informed writers are to be deprecated at the present time, when the report of a Royal Commission is on the eve of publication. When that report appears, we shall learn the truth from those who have taken the trouble to ascertain the facts, in order to indicate the restrictions, if any, that should be imposed.

THE great loss and inconvenience caused by the occasional high tides in the river Thames may, it is hoped, be avoided by engineering skill. Messrs. LEE-SMITH and PARKER, of Victoria-street, have produced a scheme which has already been submitted to the Metropolitan Board of Works, and

which is intended, we understand, to be brought before Parliament in the coming session. We have been favoured with some particulars of this scheme, and are glad to take the opportunity of introducing it to our readers.

The tidal wave which, under exceptional circumstances, sweeps up the river may be represented by a curved line, the summit of which is sometimes several feet above Trinity high-water mark. The volume of water which it adds to the ordinary flow of the river may be roughly stated at 500,000 cubic feet. It is well known that the river below Woolwich is bordered by marshes, which, though below the level of high water, are above that of low water, and can therefore be drained by sluices which open as the tide falls. In the river reaches with which we are concerned, the difference between high and low water marks is about twelve feet and a half, and the marshes are protected from overflow by a river wall of great antiquity, and about seventeen feet above low-water mark. Even in exceptionally high tides the river does not overflow these walls.

It is now proposed to enclose certain tracts of these marshes on both sides of the river by walls similar to the present river walls, and of equal height. Those portions of the river wall which abut on these enclosed areas would then be lowered by two or three feet. The effect of this arrangement, it is suggested, would be, that in ordinary tides the river would be confined within its present walls, but that in extraordinary tides, such as occur at most but two or three times a year, the tidal wave would flow over the river wall in the places where it had been cut down, and would partially fill the reservoirs, which of course must be amply sufficient in area for the purpose. Numerous sluice-gates would be fixed in the river wall, so that as the tide receded the inundated reservoirs would be thoroughly drained, the only effect on them being their temporary submersion in brackish and somewhat muddy water.

The areas proposed for these reservoirs are four in number, two on each bank of the river. On the left, or Essex side, one, the largest, would extend from Rainham to Purfleet, with a river frontage of about two miles, and the other from below Purfleet to a point nearly three miles lower down. On the Kent side, the first reservoir would stand on the Plumstead and Erith marshes, with a frontage apparently of about one mile; and the second from Dartford Creek to Stone, with a frontage of about two miles. If we understand the plans aright, some eight miles of river wall would therefore have to be lowered.

Such is the scheme as it stands at present. It is only proposed to purchase the land necessary for the walls, compensation being paid to the owners or tenants of the enclosed portions for any damage done by the floods; and the expense would, we presume, be met by a rate either upon all London, or upon the districts protected by the works. The last point raises difficulties; for a general rate would be rather hard on the great majority who have no personal interest in the matter, and the burden would be enormous if thrown upon a small district.

Other difficulties suggest themselves on a closer consideration, and prevent our offering unhesitating support to a scheme which at first sight appears promising. Some engineers appear to doubt whether the proposed remedy would really meet the evil, thinking that the diversion of a portion of the water would merely cause a more rapid upward flow. This point, however, we leave to engineers. More certain is the objection founded on the present and increasing value of some of the land proposed for reservoirs. Take the Erith and Plumstead marshes for instance. The great bulk of the area so named is not marsh at all, in the true sense of the term, but well-drained, valuable, and, in some parts, highly-cultivated arable land. Moreover, besides the pumping-station at Crossness and one or two gunpowder magazines, several large manufactories stand on the banks of the river between Plumstead and Erith; and, of course, in all these places there would be no possibility of admitting water to the reservoir. These difficulties have been recognised by the projectors; and, although this area is marked out on their map, they now propose to give it up, believing that the others would provide abundant storage without it.

To the appropriation of the three other areas for such a purpose the same objections must, however, apply. It is true that a great portion of the river frontage in these districts is at present unused, and that most of the land is untilled. But there is no certainty that this state of things will continue. Manufactories of questionable sanitary repute are constantly being driven out of the metropolitan area, and the advantages of river carriage naturally tempt the owners to go down the river. Tall chimneys have been rising rapidly for the last few years, and it appears likely that before long the lower reaches of the Thames will become a highly important manufacturing centre. Thus, apart from the chance of waste or meadow lands being brought into cultivation, it is by no means unlikely that the areas named may ere long become utterly unfitted for the proposed purpose by the complete occupation of the river walls which limit them. A great expense would then have been incurred for nothing, and the present danger of floods would recur with undiminished intensity.

THERE are few truths that have been more forcibly brought home to us within comparatively modern days than that which declares all mental phenomena to be in great measure dependent on the organisation of the nervous system, as demonstrated by actual experiment. In point of fact, the barriers between physiology and psychology are fast being destroyed. Day by day the boundaries of a purely mental philosophy are being narrowed by new discoveries in the physiology of the sensory organs, until at length we begin to see clearly the new psychology emerging from behind the metaphysical haze that has concealed it for centuries. It is, then, with no small satisfaction that we notice the appearance of a new quarterly journal in which the claims of physiology as the basis of a large amount of psychology will be fully recognised. Its appearance and prospects of success point also to a much more widespread interest in philosophy than was taken in it even ten years ago. Time was, indeed, when philosophy kept aloof from material and mundane affairs—when it was the chosen life study of a few enthusiasts, each of whom did his best to found a "school of thought" different from that of his predecessor. But it is now aiming at a wider application—in many

instances a directly practical and useful one; and a knowledge of its leading principles is becoming, indeed, a necessary part of a higher education. To the physician the study of the mind in health and its dependence upon the normal performance of the corporeal functions is no less interesting than necessary; and to many of our readers doubtless the appearance of such a publication as *Mind* will be welcomed with pleasure, furnished as it is with such a list of contributors as HERBERT SPENCER, GEORGE HENRY LEWES, and Professor BAIN, and edited by Professor CROOM ROBERTSON. We may hope in future numbers to find contributions from some of the leading psychologists among ourselves—as WILKS, MAUDSLEY, BASTIAN, and CARPENTER.

There is one article in the journal before us which deserves especial recognition at our hands. It is entitled "Physiological Psychology in Germany," and is from the pen of Mr. JAMES SULLY, who by his recent work on "Sensation and Intuition" has proved himself to be thoroughly conversant with the recent advances made in the physiology of sensation—notably by HELMHOLTZ—in their application to psychology. In the present article Mr. SULLY devotes himself, in the main, to an analysis of WUNDT's great work on the subject of Physiological Psychology—we believe, the first notice of this most important book that has appeared in this country. The name of WUNDT as a physiologist is indeed familiar to us, but in his character as a psychologist he is yet but little known, at least in England. Certainly no one can render more service in the elucidation of mental processes than he who has already attained a high position as a physiologist.

It is manifestly in the field of "sensation" that these two hitherto distinct branches of knowledge—physiology and psychology—blend; and it is from the study of the functions of the sensory organs that much light may reasonably be expected to be thrown upon the higher mental operations. Among the first to work in this direction was the well-known physiologist JOHANNES MÜLLER, who, in order to explain KANT's famous metaphysical problem or theory of space, enunciated the doctrine of the "specific energy" of nerve-fibre—a doctrine which, although amplified and extended, has in the main been accepted by physiologists since his day. The term "specific energy" carries its interpretation with it; implying simply that each order of sensory nerve-fibre is primarily modified so that it can only react in one particular way, and that when stimulated it can only call up one special sensation. This doctrine—which really amounts to but little more than a mere restatement of the fact that there are different kinds of sensory organs, with their special nerves, in connexion with the cerebrum—is disputed by WUNDT. He denies the existence of any specific energy, whether of the conducting fibres or the recipient nerve-cells in connexion with a sensory organ; and declares them to be alike "functionally indifferent," just as anatomically no perceptible difference exists between a nerve-fibre or central cell in connexion with the different sensory organs. A similar view was taken by Mr. LEWES several years ago. The arguments adduced by WUNDT fall under two heads: first, the difference in the structure and disposition of the terminal organs; and, secondly, the capability possessed by nervous tissue of becoming modified under repeated stimulation of one sort, so that whatever stimulus may subsequently act on it the sensation peculiar to the special stimulus is alone called up. Briefly put, this latter statement is "the extraordinary capacity for self-adaptation to stimuli." The special structures or terminal organs—fitted to react only to stimuli of one kind—transmit to the nerve-centre by means of the fibres the particular excitation in question. Further, the theory of specific energy is incapable of explaining the mechanism by which varying degrees or qualities of sensations of the same sense can be produced. One explanation of this was proffered by HELMHOLTZ, who assigned to separate fibres the function of conveying a separate quality of sensation—as, for example, in his comparison of the organ of Corti to a keyboard, the components of which severally react to vibrations of different wave-lengths. WUNDT combats this view mainly on anatomical grounds; and with regard to audition, to quote Mr. SULLY's words, "He maintains, in opposition to HELMHOLTZ, that a simultaneous excitation of two adjacent fibres would result, not in an intermediate tone, but in the two tones answering to the fibres, and that therefore, since our sensations of tone contribute a *continuum*, the hypothesis of definite pitch fibres would require an infinite number of nervous threads." In short, WUNDT believes that the kind of sensation depends on the form of stimulation, and that the reason why a special sensory nerve can only react in a particular way is that because of repeated stimulation by one form of excitement it has its molecular constitution so altered that at last, no matter what form of stimulus be applied to it, its specific sensation will be aroused. So that the outcome of WUNDT's reasoning brings us to much the same point as the hypothesis of specific energy does: it implies that there is a specific and structural adaptation of the various sensory nerve-fibres and their respective ganglionic cells, by which they can only react in a particular way. But the great merit of WUNDT lies in the fact that he has attained this end by a different path, and has given an explanation of the causes of variety in sensation which he thinks is the more "conceivable psychologically," and, as Mr. SULLY points out, is more in accordance with the doctrines of evolution.

There are other directions, besides this of the qualities of sensation, in which the psychological part of sensation has been materially aided by physiological experiment. The rate of transmission of the nervous impulse, the time taken in the mental process, have been estimated; but more than this, there has been ascertained by actual measurement the amount of sensation which is called forth by a stimulus of a given strength. This quantitative measurement of sensation—i. e., of an actual mental operation—has been so accurately done that it has been possible to deduce therefrom a general law. This was done by FECHNER in his now well-known "psycho-physical" law. Based upon the observations of many experimenters, this law starts with the smallest perceptible stimulus required to call up a given sensation. In order to produce an increase in the sensation it is found that the stimulus must be increased in a definite manner, at a constant rate, but different from that of the sensation. Thus, there is a definite relation between

the stimulus and the amount of sensation called up by it,—a relation expressed in the law "that sensations increase in proportion to the logarithms of the intensity of excitation." At present the law has not been applied to the senses of taste and smell, and, with regard to the other senses, it only holds good within certain limits. Hence it cannot be regarded as final, and it is possible that it may require some modification before it will stand every test. As it stands, however, it is a striking example of scientific generalisation.

We have no space to follow Mr. SULLY through his lucid exposition of Professor WUNDT'S views on the more strictly psychological subject of "Attention," in which, however, physiology is introduced in support. Enough is recorded in the article to show how much, and how little, is yet known in this comparatively unexplored domain of "physiological psychology."

DURING the past few weeks, mainly in consequence of two very serious catastrophes, the daily journals, and especially *The Times*, have literally teemed with all possible varieties of correspondence, relative to school-ships and training-ships. A dearth of seamen, and a glut of poor, idle, and erring boys, have drawn into the controversy merchants, shipowners, and philanthropists—all, we are glad to know, large and powerful sections of the community. And it may be said, indeed, that the subject is interesting also to ratepayers, inasmuch as the utilisation of young paupers, and the reformation of youthful thieves, mean a diminution also of local taxes. A great deal has been urged for and against the plan of herding large numbers of boys afloat in old men-of-war, and there is no doubt that in the eyes of the public, the weight of argument, or (more truthfully) the popularity of the plan, has been on the side of continuing these establishments, and increasing their numbers. Capt. BURNEY, R.N., Superintendent of the Greenwich Hospital School, and Mr. TUFNELL, Government Inspector of Schools, have followed on the other side, and have shown somewhat forcibly the imperfections of the system. It is necessary, however, that the public should know something about the sanitary aspects of these establishments, which aspects few committees seem to have sufficiently considered.

The external conditions of these vessels are, as a rule, tolerably favourable. The ship is moored in a tidal river or estuary, so that, unless she be close to a drainage outfall, or to manure, chemical, or other works, air and water are being constantly changed. But in the Thames, and some other ports, the ships are moored fore and aft, so that, as they cannot swing with the tide, one side usually gets more solar heat and light than the other.

The internal conditions must be examined thoroughly before any sort of sanitary estimate can be given. No two school-ships are fitted up alike. In all room must be found for galley—(i.e., cookhouse), sick bay, school-room, dining-room, sleeping quarters, bath-room, music-room, and in some cases a library, as well as officers' quarters. The height of the decks ranges from 5½ to 6½ ft., their length from 110 to 170 ft., and their breadth from 40 to 48 ft. The space allotted to each boy at night varies from 300 to 600 cubic feet. Most of the ships are, technically speaking, two-deckers, but many of them have three inhabited decks. There is a tendency in all to impede natural ventilation, by putting up wainscoted divisions (called bulkheads), so as to "wall off" the deck into separate compartments. In-cast ventilation is usually accomplished through the ports or scuttles, the hatchways serving as up-casts, so that, as a result, the air of the lowest deck occupied is the most pure. The urinals and closets are placed in the bows of the ship, on the upper deck, and are very often a weak point in the arrangement and administration. The washing-room is usually placed on the main deck, more or less completely bulkheaded off. And here, as it would appear to some authorities, the general description might end. But people who care to canvass the sanitary state of school-ships should think of the vessel as they would think of their own house, and, as they would inspect the basement and drainage of the latter, let them go below the water-line in the former. And we may say here at once that it is as bad to live continuously in a ship at fixed moorings with an unventilated and obstructed hold, as to live in a house built over a cesspool. The holds of these school-ships usually contain water-tanks, coals, and miscellaneous stores, but all are more or less complicated with partitions of various kinds, rendering a complete examination of the waterway difficult, and collections of foul air frequent. H.M.S. *Britannia*, moored in the Dart, and occupied by naval cadets, is, we believe, almost the only exception; for here the inspector can walk along the bottom of the ship for its entire length, and no bilge-water is ever permitted to accumulate. In fact, with the exception of the water-tanks, the hold is as clear as the inhabited decks, and its proper ventilation is secured by a comparatively simple system of down-cast and up-cast tubes fixed at both ends as well as at the sides of the ship.

It is not requisite to remind our readers as to the necessity of obtaining a constant supply of pure water, but the authorities in some cases do not appear to have appreciated the importance of this matter. Direct communication with a main on land, by means of a flexible pipe, is doubtless the best plan, but unless the ship is moored well in shore this course is impracticable. We need not advert to conditions that should exist in all schools ashore and afloat, such as personal cleanliness, an abundance of clean linen and towels, aeration of bedding, warm clothing, and proper scales of diet. Enough has been recorded above to show that "specialities" exist on board ship, all of which must be very carefully attended to, in order to secure an average state of health among the inmates. Epidemics have occurred on these ships, as at other schools, but if the internal construction of these establishments when first fitted out is properly attended to, and the supervision above and below (but especially below) careful and constant, there can be no reason, on sanitary grounds, why the system should not be safely and usefully extended.

THE condition of the lepers of Bombay will, it appears, be benefited by the visit of the Prince of Wales to India. It is stated that an asylum is to be built for the accommodation of 150 of these unfortunate beings, without distinction of age, caste, or creed, as a memorial of the visit of His Royal Highness.

Annotations.

"Ne quid nimis."

MEDICAL WOMEN AND THE BIRMINGHAM SCHOOL.

THE delight with which the advocates of female medical education have received a resolution of the Queen's Hospital at Birmingham may prove to be somewhat premature. It has been assumed that the institution is now open for the clinical education of women; but the assumption is only correct in a very restricted sense. The Mayor of Birmingham, Mr. Joseph Chamberlain, having failed to induce the Council of Queen's College to admit women to the study of medicine, was authorised to communicate with the Committee of the Queen's Hospital, "to ascertain if they would be willing to afford facilities for the clinical instruction of women at the Queen's Hospital, in the event of a Ladies' Medical College being established in Birmingham." The reply was embodied in the following resolution:—"That the Committee is willing to allow the clinical instruction in the hospital of women students by any members of the medical and surgical staffs who may be desirous to give such instruction, and is of opinion that arrangements might be made for that purpose which could not conflict with the obligation of the hospital either under the Act of Parliament by which it is incorporated or under the scheme for amalgamated clinical instruction." The first part of this resolution is purely permissive, the second is merely an expression of opinion. Those physicians and surgeons of the Queen's Hospital who are willing to admit women to their *cliniques* may do so, says their Committee; but supposing that those teachers were a minority of the staff, and that the number of beds at their joint disposal were considerably below that required by the licensing boards, the female students who might avail themselves of the Committee's permit could not obtain the evidences of clinical study, without which, other difficulties apart, they would not be admitted to examination. When the Queen's Hospital Committee expressed an opinion that arrangements for female medical education might be made without interfering with their Act of Parliament, it is presumable that they were so advised; but when they proceeded to express a further opinion, that the contemplated innovation would not interfere with the obligations of the hospital under the scheme for amalgamated clinical instruction, it is pertinent to ask whether the parties to that scheme had been consulted? Under that scheme, by agreement between the Council of Queen's College and the Committees of the General and of the Queen's Hospitals, the Clinical Board is empowered to sign *all schedules* for hospital attendance, to *regulate all matters connected with clinical attendance*, and all pupils of the Birmingham medical school are compelled to attend the practice of both hospitals, in such manner, and at such periods, as may be directed by the Clinical Board elected by the staffs of the two hospitals entrusted with the working of the amalgamated clinical scheme. When that scheme was framed, the question of female medical education was not thought of, and it may be technically correct to state that the admission of women at the Queen's Hospital is not literally opposed to any article in the agreement. It has never been pretended that that instrument, though formally drawn up and entered on the minutes, possessed the force of a legal enactment, though it was intended as binding in honour on all those who were parties to it. If the three institutions did vest the power of directing clinical instruction in Birmingham in the local Clinical Board, it cannot be conceded that any one of the three has a right, *proprio motu*, and without conference with the other contracting parties, to introduce any change in the admission of candidates for clinical instruction at either of the amalgamated hospitals; and this right of independent action and practical dissent, without notice or conference, is precisely what is claimed for the Queen's Hospital. Granting, for the sake of argument, that the committee and staff of that institution were unanimously of opinion that the admission of female students would be beneficial to the Birmingham school, if the two other parties to the amalgamation, the Queen's College and the General Hospital, have a directly contrary opinion, it is not to be supposed that the honourable men who have a seat on the Queen's Hospital Committee would deliberately do anything to violate a compact, formally entered into, for the joint benefit of all the members of the Birmingham Medical School. The question is not one of narrow legal interpretation, but of broad honourable understanding, involving much more than the prosperity of a provincial medical school, or the success of a theory.

As a fact, the Council and professors of Queen's College and the staff of the General Hospital are practically unanimous in saying that they cannot undertake the medical education of women. At the Queen's Hospital a large and influential section of the lay Committee and a clear majority of the medical and surgical staff are decidedly of opinion that they have no right of separate action, but are in honour bound to consult the views of all the parties to the scheme of clinical amalgamation under which pupils have for some years been admitted to the Birmingham school. The pupils, their parents and guardians, have also a right to be heard. If a father objects to his son attending medical classes and hospital practice with women, he has a perfect right to do so; and important legal questions may arise as to how a parent so objecting may obtain redress, if the conditions under which he has paid for his son's education have been materially altered.

The advocates of female medical education are divided into those who are in favour of mixed, and those who advocate separate, classes. In a college or medical school the solution is a comparatively easy one. If the professor of medicine or surgery, having two sets of students, is willing to give a double course of lectures, he is at liberty to do so; but in a hospital the case is very different. Unless mixed instruction (male and female) is to be compulsory—and no one pretends that such power of compulsion can be legally exercised,—given a case of acute pneumonia, pleurisy, or rheumatic inflammation of the heart, is the patient to be put through two painful physical examinations, for separate classes, in the same morning? Is a man's thigh-stump, an inguinal hernia, or a compound fracture, to be dressed before two classes of male and female students consecutively? If it is conceivable that a hospital committee, including a sufficient number of enthusiastic and enterprising persons, might assent to such double demonstrations, what would the governors and subscribers to the institution say? And are the poor who seek relief within its walls to be denied a hearing?

In Mr. Joseph Chamberlain's advanced political creed, one of the fundamental articles is the omnipotence of majorities. In the Birmingham Medical School he has only a small minority with him on the question of female medical education; and, conceding that scientific enlightenment, political liberality, and the amenities of courteous toleration, may be all on the side of his minority, we feel sure the Mayor of Birmingham is too consistent and high-minded to fight any battle on principles in which he has no faith. In his communication to the Queen's Hospital Com-

mittee, the Mayor expressly admits that a Ladies' Medical College has been projected in Birmingham, and it is well known that a movement has been set on foot, and has made considerable progress, for developing into a general hospital the existing Hospital for Women at Birmingham. With such an institution, and with facilities for female medical education at Mason's College, which is rapidly advancing towards completion, the advocates of female medical education would have ample opportunities for carrying out their experiment under the most favourable conditions; and they would strengthen their title to support by respecting the rights and opinions of others, while striving to establish and promulgate their own.

THE LATE DR. ANSTIE.

SUCH is the heading of a memoir of Francis Edmund Anstie from the sympathetic pen of Dr. Buzzard, which appears, preceded by a vivid portrait from a photograph by Fradelle and Marshall, in *The Practitioner* for January. At first sight it seemed simply cruel to revive the memory of one whose death so impoverished the profession and the circle in which he moved. But we rise from a reading of Dr. Buzzard's paper with a very different feeling. It tells us, that if Anstie died all too soon, he did not die before doing more work than is generally done in twice the number of years that he lived. True, he had not done much for himself. Practice had not rewarded his intense search for remedies, and his intense faith in medicine as something more than morbid anatomy. Nevertheless he had his reward. Even practice and reputation as a physician were coming quickly upon him in the last year of his life. But to a nature like his these were not the first necessaries of life. The compulsion that Anstie felt himself to be under was to enlarge the bounds of medicine, and to multiply and refine its applications. A sick pauper in a workhouse on a bed too short for him or too hard fired his impatience as effectually as a rich man with an unrelieved pain. Doubtless his own experience of pain accounted for some of the earnestness with which "he loved remedies," to use the happy words of Dr. Buzzard. But by far the most of it was due to an intensely human nature, educated by sound medical studies. He had grand conceptions of what society would be if it regarded the laws of health and well-being, and the consideration of every departure from these came within his notion of the domain of medicine.

Students and all men that want a model should study Anstie's life as drawn by Dr. Buzzard. He was more than a philanthropist—he was a physiologist. He was more than a physiologist—he was a physician. "He loved remedies." He did not look with folded hands on the "natural course of disease," or acquiesce in the lazy yawning apathy of believers in things as they are. And what is the consequence? *Cui bono?* Though he died at forty, this is the consequence: that medicine has received a new impulse, and the "natural course of disease" now checks; that the estate of pauperism has been made less painful; that the influence of the College of Physicians has been recognised by the Home Secretary in the House of Commons in introducing a Bill to facilitate improvements in the dwellings of the working classes.

Dr. Buzzard has done ample justice to the grand work which Anstie did as a LANCET Commissioner. There is one part of Anstie's views to which Dr. Buzzard has not alluded. He was a hearty advocate for the amendment of our examining bodies, and one of the chief framers of THE LANCET Bill for abolishing the evil of competition downwards among the nineteen examining bodies. Everything goes to show that the views embodied in that Bill will ere long be realised. But we must leave this subject. Dr. Buzzard has given, not an estimate, but an historical account, of what can be done by a physician dying at forty, who has worked at once humanely and scientifically.

ERRORS IN PHARMACY.

WE are not surprised that both the Town Council and the chemists of Sheffield have been roused to indignation at the report of the borough analyst on the manner in which some prescriptions had been made up. It had been found that in several instances wrong quantities of drugs had been compounded. The details of the report are not before us, but we presume that the test prescriptions which were employed were of such a character that the quantity of the ingredients could be ascertained by subsequent analysis with sufficient accuracy. The prosecution of the chemists was urged upon the Council, and a chemist, who is a town councillor, in a very indignant speech, charged the analyst with an unfair report, and denied the possibility of ascertaining the alleged facts with certainty. A similar tone naturally prevailed at a meeting of the Sheffield Pharmaceutical Society which was held the same evening, and a resolution was passed stating that the report of the analyst cast unmerited reproach on the entire trade of the town, while tests were made from prescriptions made up by chemists in the outskirts who were not often called upon to dispense prescriptions.

The question is one which very intimately concerns, not only a large and important trade, but our own profession and the public. For the accurate composition of medicines both we and our patients are in many cases entirely in the hands of the pharmacists, in whom as a body implicit trust is placed. For that trust every day's experience gives us, as a rule, ample warrant. We may say at once that, as regards the great bulk of chemists, we believe any imputation of inaccuracy in their work to be entirely unfounded. But in every calling there are plenty of unworthy followers. The wholesale adulteration of drugs is a familiar fact, and that there should be some retail dealers who allow similar principles to rule their daily practice is probable enough. There can, then, be no reason why the compounded medicines which chemists supply should be exempted from analytical tests of their correctness. It is, of course, essential that such tests should be capable of absolute, or nearly absolute, accuracy, and, for conviction, that the discrepancy between the prescription and the medicine supplied should be far greater than the possible limits of inaccuracy in the analysis.

We confess we can see no unfairness in the fact that the chemists whose medicines had been analysed were those "far from the centre of the town, who were not often called upon to dispense prescriptions." It is always among the smaller dealers in a commodity, who have no wide and high reputation to preserve, that adulteration and fraud prevail most extensively. It is they who use false weights, who sell adulterated articles. Our police reports afford daily illustrations of this. We are also at a loss to perceive the force of the excuse which appears to have been offered as an explanation, if not a palliation, of the possibility of the alleged errors—that the chemists were not often called upon to dispense prescriptions. It is difficult to conceive that any considerable error in the composition of a medicine can have been accidental. It is more probable that the temptation to use less of an expensive drug than was ordered, for a medicine for which a certain price only could, with prudence, be charged, proved too strong to be resisted. There is hardly a chemist in England, we should have thought, civic or suburban, however small a business, who is not called on daily to dispense at least one prescrip-

tion. There is certainly not one who may not at any moment be called on to make up a prescription on the correct compounding of which a life may, unknown to him, depend. The explanation of incompetence will be hardly more reassuring to the public than that of intentional fraud.

CHLORAL.

HARDLY a week passes that we have not to comment upon some fresh instance of poisoning by chloral. One of the most distinct cases that have been recorded has lately occurred at Exeter. A young lady was in the habit of helping herself to doses of the "harmless sleep-producer" (as it is too often termed in mistaken assurance) for the relief of pain in the stomach. One morning her maid gave her a bottle containing some solution of chloral, of which she apparently took the whole, containing, as was afterwards estimated, about 125 grains. Before dressing she fell on the floor asleep, and in the sleep, about three hours afterwards, she died. It is probable, as the surgeon called in suggested, that the gastric pain was increased by the chloral, since such pain is commonly produced by a large dose, and that more chloral was taken with the object of relieving this pain. The case points once more the moral we have so often repeated, that the administration of chloral should no more be left to the patient than should that of morphia. Indeed, the mode of its action and the remarkable susceptibility to its influence manifested by some persons, render it a less fit agent for self-administration than morphia or opium would be. Individual peculiarities, so far as opium is concerned, are chiefly manifested by insusceptibility to its narcotic influence; the common exception is that the narcotic dose simply excites and fails to narcotise. With chloral, on the other hand, the ordinary dose has more often a greater than a less profoundly sedative influence. It not unfrequently has a special paralysing effect on the heart, which is absent in other cases, in which the same dose produces no such effects. In this respect the effect of chloral closely resembles that of chloroform inhalation. So small a dose as sixty, thirty, and even ten grains has been followed by death, which could not be referred to any other cause than the chloral. A proof of the remarkable influence of constitutional state lies in the fact that in the cases of "poisoning" by chloral—i.e., in which dangerous symptoms were produced—which recovered, the dose taken was, on an average, smaller than in those cases in which the symptoms went on to a fatal issue.

Another difference between chloral and opium is illustrated, at least in some degree, by the case at Exeter. It is that habitual chloral-drinking does not remove a liability to suffer from a relative overdose. Such a liability we must assume to have existed in this case, because much larger doses have been taken with impunity. Indeed, a few years ago a good authority gave 140 grains as the maximum dose "which should under any circumstances be administered to the human subject," and the dose was in this case less.

The occurrence of this liability renders chloral, as a popular medicine, eminently unsafe. It is probable, from the facts recorded of chloral- and chloroform-poisoning, that the liability is not one merely of personal idiosyncrasy, but is also one of temporary constitutional state. A dose of chloral may produce death which has been taken at a previous time without dangerous symptoms. There can be little question that the sale of chloral ought to be placed under the same restrictions as that of opium.

In most cases the habit of chloral-taking has been engendered by the medical prescription of the drug. Patients always study their prescriptions and know at once when chloral has been ordered for them. It would be wise if a preparation were introduced into the Pharmacopœia which should contain chloral in dilute proportion without having the name attached to it. The convenience of the system is illustrated in the case of opium by the Tinct. Camph. Co. The introduction of the word opium into the name of the latter was generally and successfully objected to. We believe that a preparation in which a small dose of chloral might be given without a patient's knowledge would render its occasional use practicable without the same risk of self-administration, which often makes physicians wisely shrink even from its occasional prescription for patients of a certain temperament.

THE LOCAL GOVERNMENT BOARD, IRELAND.

IT is rumoured that the Medical Commissionership on the Local Government Board, Ireland, is to be abolished on the retirement of Dr. M'Donnell, the present medical commissioner, which event, we believe, will presently occur. If this rumour be confirmed it will prove how completely the Irish Board has adopted the principles of sanitary administration which have governed the action of the English Board with reference to the subordination of medicine to the legal and lay elements of the Board, and how thoroughly it is prepared to carry them to their logical consequences. We have still, however, to learn whether the rumoured change can be carried out without the intervention of Parliament. The Local Government Board (Ireland) Act, 1872, provides that the Local Government Board for that division of the kingdom shall consist of a president, being the chief secretary to the Lord Lieutenant for the time being, the under secretary to the Lord Lieutenant for the time being, together with a vice-president and two other commissioners, one of whom shall be qualified in like manner as the medical commissioner under the Medical Charities Act, to be appointed by Her Majesty, and to hold office during the pleasure of Her Majesty. This would appear to render the appointment of a medical commissioner as a member of the Board imperative, unless this provision of the Bill be modified by Parliament. Meanwhile, the question of the suppression of the medical commissionership is much discussed among the profession in Dublin. It is discussed first with regard to the injurious policy which such suppression would imply, a policy as fatal to the thorough efficiency of central public health administration as the suppression of medical officers of health would be to local public health administration. Next it is discussed with regard to the particular individual whom the profession had looked to as the proper successor to Dr. M'Donnell. In view of this latter gentleman's resignation there is a singular unanimity of feeling among medical men in Dublin, equally entertained, it may be said, in London, that it is especially to be desired that he should be succeeded in the commissionership by Dr. Rawdon Macnamara. On this subject a recent number of the *Irish Times* observes:—

"When Dr. M'Donnell's intention to resign the commissionership, and the design of the Government, became first known, a letter was addressed to Dr. Rawdon Macnamara by the leading practitioners of the metropolis, expressing their belief in the utility of the office, and in Dr. Macnamara's special fitness to fill it. This letter was signed by the presidents of the Colleges of Physicians and Surgeons, by nine ex-presidents of those colleges, by the present Lord Mayor, and by nearly all the medical men of eminence practising in Dublin. Dr. Macnamara's long experience of the working of the Medical Charities Act, his well-known literary and scientific attainments, and his proved capacity as an administrator render him the most eligible person that could be selected to fill the place about to be vacated by Dr. M'Donnell. His appointment would be received with unanimous approval both by the profession and the general public; and we feel certain that the cause of sanitary science in Ireland would receive a vigorous

impulse from his adjunction to the Local Government Board."

We fully concur with the opinions expressed by our contemporary.

THE COLLEGE OF PHYSICIANS AND TITLES.

THERE is nothing more refreshing and satisfactory than to notice the tone of dignified dissatisfaction on the part of licentiates of the London College of Physicians in regard to the proposal of a committee of their College to sanction the loose and demoralising attachment of the title "Doctor" to this licence. One of them even asks that the bye-law, so far from being abolished, may be made stronger. It is no slight credit to the College to have in its licentiates such a strong ethical spirit, as well as so much sensible satisfaction with a licence for the sake of what it is, and not for the sake of any fictitious or false associations. The letter of "G. S." requires notice on account of some errors of statement it contains. It is not correct, at least as regards Edinburgh, that a student in Scotland can obtain the M.D. degree at less cost, and with no greater amount of brain-work, than it takes an English student to obtain the M.R.C.S. and L.R.C.P. "G. S." complains that licentiates of the College of Physicians have no title by which they may be recognised by the public as qualified medical practitioners. This would certainly not be a reason for appropriating the title proper to another qualification. But the statement is inaccurate. Surely a licentiate of the College of Physicians is not without a title, nor could the public fail to see in one calling himself such, a qualified medical practitioner. Nor are we aware of any rule, law, or bye-law which prevents him calling himself a physician. "G. S," indeed, says that only fellows and members have a right to call themselves physicians, and they are not surgeons unless they possess the diploma of the College of Surgeons. This statement is full of inaccuracies. "G. S." should know that a licentiate of the College of Physicians of London holds a diploma as a *surgeon* as well as a physician, and can use both titles. It is surely rather greedy for the authorities—or rather for a committee—of such a College to ask for its licentiates greater privileges and more titles. To acquire in a mere licence two such titles and a veritable double qualification is certainly to receive a *quid pro quo*, and the man who wishes for more must be considered unreasonable. We do not here revert to the injury that would be done by the Colleges playing with titles that will cease to be of value if they cease to represent veritable degrees from a University.

THE AMYLOID DEGENERATION OF TISSUES STUDIED WITH THE AID OF NEW COLOURING AGENTS.

IN a memoir devoted to the subject of amyloid degeneration of the kidney, liver, and spleen, which appears in a recent part of the *Archives de Physiologie*, M. Cornil, of La Charité, gives the results of his experiments with several new colouring matters. Two of these were methyl-anilin violets discovered by M. Lauth, the third was a violet discovered by M. Hoffmann, of Berlin. The preparations can be stained with these violets either when fresh or after being hardened in spirit (Müller's fluid or picric acid); and the colouring agents have this peculiarity, that certain tissues, as cartilage, decompose them into a violet-red and a blue-violet, each of which becomes fixed in different elements of the tissue; the hyaline matrix, for example, assuming a red colour, whilst the nuclei and cellules, as well as the cartilaginous capsules, become of a blue-violet tint. The normal tissues of the liver, kidney, and spleen, however, do not decompose the violets, but when amyloid degeneration is present, the degenerated and semi-transparent parts resembling colloid become of a violet-red, whilst the normal elements are tinted of a violet-blue, and thus a means equal, if not superior, to that of iodine, is afforded by which the changes may be followed.

The examination of kidneys slightly affected with amyloid degeneration demonstrated that this was limited to some of the vascular loops of the glomeruli, which alone became tinted of a violet-red colour, the remainder of the preparation, including the bloodvessels and connective tissue, presenting a blue-violet tint. This condition M. Cornil some time ago showed was coincident with parenchymatous nephritis and advanced granular and fatty degeneration of the renal epithelium. When the amyloid degeneration is more advanced, the glomeruli become almost completely reddened, and the same tint is observed in the arterioles of the kidney and the larger renal arteries, the walls of which are in addition greatly thickened. In like manner the hyaline membranes of the tubuli uriniferi, both in their contorted part and where they form the loops of Henle, are thickened and degenerated. Neither the endothelial cells of the vessels nor of the tubes, nor the connective-tissue corpuscles, undergo any degenerative change, which is in opposition to the views which are generally accepted.

Careful examination of the liver in a state of amyloid degeneration also showed that the hepatic cells were unaffected, though M. Cornil desires not to lay too much stress upon this, since it is in opposition to generally received opinion, and even to his own antecedent investigations; but in all the instances he examined, the walls of the capillaries or of the hepatic arteries and veins were thickened and had undergone amyloid degeneration.

Amyloid degeneration of the spleen exhibited itself in two forms; in the first the lesion was limited to the corpuscles of Malpighi, whilst in the second it was diffused and specially affected the splenic pulp. In both instances the metamorphosed parts were rendered very distinct by the use of the methyl-anilin violets.

THE PLAGUE.

AN accurate knowledge of the etiology of disease is one of the necessary requirements of preventive medicine, and no one has taken more pains to work out the geography of epidemic maladies than Mr. Netten Radcliffe, who interested the Society of Health Officers and, as it appears, at the same time alarmed the public, by giving on Saturday last a lucid and very carefully compiled history of the recent rise and progress of the plague in Asia and Africa. Its course was traced from 1858, when a circumscribed outbreak occurred in Tripoli, it having been somewhat prevalent five years previously in the highland of the Assyn district, North Yemen, Western Arabia. In 1867 the disease broke out among the Arab tribes living on the western bank of the Euphrates, and killed at that time about 300 persons. Persian Kurdestan was attacked in 1870–1, and nearly 80 per cent. of those affected died. It broke out in 1873 among the Arabs on the east bank of the Euphrates, 4000 deaths occurring in a population of 80,000 persons. In March, 1874, the disease again appeared in North Yemen, and in April of the same year in Benghazi (province of Tripoli), North Africa, attacking 533 persons, of whom 208 died. And, finally, it appeared last year in the Lower Euphrates, spread along both banks, and resulted in an estimated mortality of 4000 individuals. Observations recorded respecting the virulence and fatality of the disease show that death usually occurred in from two to seven days from the commencement of the attack; that (as has been remarked with respect to other epidemic diseases) the first cases were the most fatal; and that, as regards mode of diffusion, symptoms,

and course, it was similar to the plague as known in England two hundred years ago. Mr. Radcliffe very properly called the special attention of medical officers of health to the subject, because the disease appears to show signs of epidemic activity, and because during the last twenty years the risks to which the continent of Europe and this country are exposed with respect to importation of diseases from the East have increased forty-fold. The same constant intercommunication by sea, river, and rail, that has on more than one occasion brought us, suddenly and without warning, fully matured germs of cholera, may of course convey any other fatal disease; for, as Mr. Radcliffe remarked, there are no sufficient grounds for declaring that we in England are plague-proof. The author shows, however (and to our mind in a sufficiently satisfactory manner), that the provisions of the Public Health Act, as regards ships, together with the old quarantine laws, afford, if properly administered, a material guarantee against the introduction or spread of this malady in the United Kingdom. It is acknowledged, even at the fountain-head of conservative legislation, that quarantine, as worked by the Customs, is maintained as a political necessity, without special sanitary significance, and that the entire responsibility of preventing the importation by the shipping of plague or any other epidemic disease must now, and in the future, rest wholly with port sanitary authorities. These statements, from so high an authority, ought to be reassuring to the public, and we cannot doubt that the sanitary authorities at the ports of London, Liverpool, and elsewhere, are fully alive to the importance of keeping their special preventive machinery in good working order.

THE OPHTHALMIC SURGEONCY OF THE MIDDLESEX HOSPITAL.

MIDDLESEX HOSPITAL has just sustained a severe loss by Mr. Hulke's resignation of the post of ophthalmic surgeon, although it still retains his services as surgeon and lecturer on surgery. Much anxiety is felt as to the appointment of Mr. Hulke's successor. There are, or were, several candidates for the vacant post, but the chief are Dr. Lyell, F.R.C.S., the assistant in the eye department of the hospital, and Mr. George Critchett, the senior surgeon at the Royal London Ophthalmic Hospital. It was at first, we believe, imagined that Mr. Critchett's son, who was a student at Middlesex, would be likely to come forward, but it appears that he is at present not eligible for the post, by reason of not possessing the Fellowship of the Royal College of Surgeons. Mr. G. Critchett's candidature is manifestly anomalous and difficult to account for, seeing that he has already filled the office of surgeon to the London Hospital, and that he has held a surgeoncy at Moorfields for a period of about thirty years—so long, indeed, that he will soon be called upon to resign on account of age. It is not surprising, therefore, that complaint should be made and indignation felt by younger men at the attempt which Mr. Critchett is now making to attach himself to a third hospital. It has, however, been urged that it is only natural that a teacher of Mr. Critchett's long experience should feel some hesitation in entirely severing his connexion from the hospitals, and thus to deprive the rising generation of medical practitioners of his services as a teacher of ophthalmology. This feeling is doubtless commendable as far as it goes, but we must confess that we should be satisfied to fix on younger shoulders the responsibility of medical education. If the Committee of Middlesex Hospital suffer themselves to be led away by the flattering honour of Mr. Critchett's candidature, and neglect the claims of candidates who are younger, and have more time at their disposal, they will establish a precedent, the evil results of which it would not be easy to foretell. If Mr. Critchett were seeking for an extension of his term of office at Moorfields, he would have a better case, for he might with more consistency plead that a hospital that had had his best energies for over thirty years should not entirely throw him off because he had attained that age at which retirement is compulsory. But as regards Middlesex the case is different, for he has no claim whatever upon that institution, especially since his best days have been spent elsewhere. For these reasons we trust that some younger candidate will be found courageous enough to contest the election, and thus discharge a public duty by throwing upon the Election Committee the responsibility of making a selection.

THE CLINICAL SOCIETY.

AT the annual general meeting of the above Society, held on the 14th inst., the report of the Council was read and adopted, and the following gentlemen were elected as officers and Council for the ensuing year:—President: Sir William Jenner, M.D., K.C.B. Vice-Presidents: Dr. George Johnson, Dr. Murchison, Dr. Henry Thompson, Mr. Thomas Bryant, Mr. Christopher Heath, and Mr. Jonathan Hutchinson. Treasurer: Dr. Headlam Greenhow. Council: Dr. Bastian, Dr. Buzzard, Dr. William Selby Church, Dr. Andrew Clark, Dr. Dyce Duckworth, Dr. Hilton Fagge, Dr. Braxton Hicks, Dr. Moxon, Dr. Douglas Powell, Dr. Reginald Southey, Dr. William H. Brace, Mr. Brudenell Carter, Mr. Warrington Haward, Mr. George Lawson, Mr. Howard Marsh, Mr. Arthur Trehern Norton, Dr. Michael W. Rice, Mr. James Rouse, Mr. Edgcumbe Venning, and Mr. Soelberg Wells. Honorary Secretaries: Dr. William Cayley and Mr. Thomas Pickering Pick. Mr. Hulke moved, and Dr. Cholmeley seconded, a vote of thanks to the retiring secretary, Dr. Southey, who briefly replied. This was followed by a vote of thanks to the retiring vice-presidents and the other members of the Council, proposed by Dr. Broadbent and seconded by Mr. Norton.

During the evening it was announced that the Council had proposed that Mr. Cæsar Hawkins, F.R.S., should be elected an honorary member of the Society. It will be remembered that recently Sir Thomas Watson and Dr. C. J. B. Williams were chosen honorary members. It will be seen from our report that the usual business of the evening was transacted, no address being delivered by the President, as has sometimes occurred in previous years on his entering the second year of office. The well-known discussion on pyæmia arose out of the address delivered by Mr. Prescott Hewett on such an occasion.

THE BURNING OF BALLET GIRLS.

IT is monstrous that such terrible accidents as that which occurred at the Alexandra Theatre, Sheffield, the other day, should still be possible. Many substances are known which render even the thinnest fabrics uninflammable. Chloride, sulphate, and phosphate of ammonium, alum, and many other salts, have been proposed, but neutral tungstate of sodium mixed with three per cent. of phosphate of sodium is better than anything else. The use of this salt was first described at the 1859 meeting of the British Association, by Messrs. Versmann and Oppenheim. It affords perfect protection to the fabrics, and, unlike most other salts, does not render them harsh. It is inexpensive, is without action on colours, and the solution keeps well. It is, or was, in constant use in Her Majesty's laundry. The solution should contain twenty per cent. of the salt.

Surely a precaution so cheap and so easily applied should be enforced by law. Has the Lord Chamberlain no power in the matter? As he is able to regulate the length of

muslin skirts, he should be able to insist on their being made fire-proof. As he is able to protect the public from the danger and inconvenience of overcrowding in the passages of the theatre, he should be able to protect it from the far greater danger arising from alarms of fire on the stage. The utility of the Lord Chamberlain's function is often questioned nowadays, but it will, we imagine, be questioned no longer if he shows that he is able to grapple successfully with this long-recognised and most terrible risk. The thought of the poor little fairy suspended in a blazing basket of flowers, and carried away at last to die after weeks of agony, will surely bring the matter home to our authorities. What we most fear is that it will be "nobody's business" to see after it.

In the new Paris Opera House danger of fire is almost completely averted by a peculiar arrangement which causes the footlights to burn *downwards* instead of upwards. Each light is surrounded by a glass, and if this glass is broken the gas is instantly turned out by an automatic contrivance.

FEMALE GRADUATES AT THE UNIVERSITY OF LONDON.

AT a meeting of Convocation in the University of London an important debate arose on the admission of women to degrees in Arts. Mr. A. P. Hensman moved "That it is desirable that a new charter be granted to the University, and that no such charter will be acceptable to Convocation which does not enable the University to grant degrees in Arts to women." This resolution as it stood was not unreasonable considering the number of ladies who have successfully presented themselves for examination for the certificate which the Senate was, in 1867, empowered to grant. But the resolution was materially altered before it was adopted, by the omission of the words "in Arts." This alteration was of course designedly made for the purpose of admitting women to the medical degrees. It remains to be seen what action the Senate will take, but it cannot be denied that there is a strong determination on the part of the agitators for the complete emancipation of women, to carry all their measures sooner or later, although the attitude of their opponents is not less fixed. It should not, however, be forgotten by those graduates of the University of London who are clamorous for the granting of degrees to women, that there is a very great difference between granting a degree in Arts and granting a degree in Medicine, inasmuch as an education in Arts is general, but an education in Medicine and its allied sciences is quite a special matter, and affects those bodies that conduct the course of study rather than that which grants the degree.

POTABLE WATER IN THE FENS.

THE inhabitants of "Fenland" are, or were, popularly supposed to be web-footed. Though there may be water everywhere, it appears that there are comparatively few drops to drink. The Fenland Meteorological Circular and Weather Report, published by Mr. John Leach, of Wisbech, has during the past three months given some interesting, but very unsatisfactory, particulars as to the kind and quantity of drinking-water in the Fens. The number for January contains a tabulated statement as to the supply of drinking-water in certain villages named. Thus: "This place has a public pump, and the water is contained in a dirty pit"; "people have to cart the water two or three miles" (one drawback, as the author remarks); "there is a cistern in the churchyard, water sold at a halfpenny per 'gate,' but not much used in consequence of prejudice to the position of the reservoir"; "water-supply bad; in 1874 water had to be fetched from Lynn, a distance of five miles." These scanty extracts, and a perusal of the article from which they are taken, show a desperately bad state of things in the eastern counties. It appears, too, that no pains are taken anywhere to store water. It is suggested that a great deal of rain-water might be collected from the roofs of churches, chapels, and other buildings in the district; but these notes show that nothing really practical has as yet been done in this direction. Dr. J. M. Wilson, medical officer of health for the North Witchford Rural Sanitary District, is the author of the articles from which we have quoted.

A DEADLY CLIMATE.

IN the Medical History of the War in the Gold Coast protectorate in 1873, just published in the Army Medical Blue-book, we find some details regarding the condition of the body of Royal Marines on whom had fallen the hard work at the commencement of the expedition, and whose arrival in this country excited no little apprehension as to what might befall any European force sent to the West Coast of Africa. On the 23rd of July 56 men were in hospital, or on board ship as convalescents, and only 47 were at their duty on the Gold Coast. On the 31st of the month, 62 per cent. of the Marines being ineffective, it was decided that the detachment should be sent home. Out of the 85 non-commissioned officers and men who embarked on board the *Himalaya* there were but 14 who had not suffered from climatic disease; and although these men were apparently well on leaving Cape Coast, they all suffered from the effects of climatic disease on the voyage home, and 2 died. Eight of those ill when embarked died during the voyage, and 3 others died after arrival in England. On the arrival of the ship at Portsmouth 58 of the Marines were sent to hospital, and the other 17 were allowed to go on sick furlough. For a parallel to this sickness we must turn, we are told, to the Walcheren expedition, the mortality in which, 17·07 per cent. of the strength disembarked (7000 deaths in 41,000 men), is nearly the same as that, 17·30, in the Gold Coast detachment of Royal Marines (18 deaths amongst 104 men), and the parallel is sustained in the after consequences—the shattered health of the survivors in both expeditions.

THE FIRST APPEAL UNDER THE NEW ADULTERATION ACT.

THE first appeal to the Excise laboratory at Somerset House has had a most unfortunate termination. A cheesemonger in Great Suffolk-street, Borough, was charged with selling adulterated butter. Dr. Muter, the public analyst for the district, certified that the sample submitted to him consisted entirely of foreign fat. The defendant demurring, another portion was sent to the Excise laboratory, and at the adjourned hearing Mr. Bell testified that it was pure butter! Of course this terminated the case, but the magistrate wisely permitted a good deal of evidence on both sides to be heard, in consideration of the importance of the case. Dr. Dupré, Mr. Wigner, and two other witnesses, confirmed the accuracy of Dr. Muter's analysis; while Mr. Lewis, from the Somerset House laboratory, confirmed that produced by Mr. Bell.

Cases like this cannot but shake public confidence in respect to the working of the Act, for the authority of Somerset House, though respectable, is not sufficient to over-ride all others. At the present moment it is impossible to say which of the two parties in the case before us was right, although the presumption would appear to lie on the side supported by the greatest number of independent witnesses. It must, however, be admitted that the proximate analysis of butter is still in a most unsatisfactory state. Leading authorities hold very different views in regard to

it, and the published methods, though valuable in themselves, are hardly of a kind to inspire much trust. Time will set all this right, but for the present there is certainly some danger of occasional injustice being done on the one side or the other. Public analysts must hasten to perfect their methods as far as possible, for though it is highly important that adulteration shall be stopped, it is not less important that the evidence on which a charge of fraud is founded shall be clear and incontrovertible.

THE ADMINISTRATION OF THE METROPOLITAN ASYLUMS BOARD HOSPITALS.

IT appears from reports recently issued, that a great amount of discussion has occurred among the members of the Metropolitan Asylums Board as to the vast difference of cost of maintenance between the patients treated at Homerton and at Stockwell. The precise relative aspects of the question have not reached us, but the chief reason is, or is asserted to be, mainly due to the fact that more stimulants are prescribed in the former establishment than in the latter. This of course is attributable to individual professional proclivities, the exact limits of which, either way, we do not care to indicate; nor, indeed, could we properly do so, as may be perceived by an annotation "On the Use of Alcohol," published in last week's LANCET. Any very glaring differences in the comparative expenditure (number of patients and all other circumstances of course being equal) should induce the managers to inquire whether clumsy administration or some variety of maladministration in the victualling or cooking department was not the source of the discrepancy, as the managers of the Metropolitan Asylums Board are a careful, competent, and painstaking body of men, and have exercised, as a rule, a wise discretion in all dealings with their professional officers.

PRACTICAL RELIGION.

ANY notes from the pen of an ecclesiastic on things appertaining to practical hygiene are, or should be, always welcome. The Rev. Harry Jones, in a small book called "East and West London," that has lately appeared, indicates, from an extensive experience gained at both ends of the metropolis, how much those of his cloth may help those of ours in inculcating sound sanitary principles, and showing the people how to practise them. The author gives some descriptive notes of the epidemics of cholera in 1854 and 1866, and interests us immediately by reminding his readers that the late Dr. Anstie personally assisted him in the house-to-house visitation in the parish of St. George's-in-the-East, and shared many of his labours in the cause of cleanliness. Mr. Harry Jones also touches, with a light but no uncertain hand, on the immoralities of Ratcliff-highway, and contrasts on this score the proclivities of East and West, very much, as we think with him, to the disadvantage of the latter. The impression conveyed by a perusal of this little work is that, in matters sanitary as well as moral, "Dockland" is not so bad as it is painted.

INFECTIOUS DISEASES AFLOAT.

THE return of H.M.S. *Sultan* from the Mediterranean on account of an epidemic of scarlet fever that had occurred on board, gave an opportunity to some of our daily contemporaries to show their ignorance of the existing sanitary laws. The *Sultan* arrived at Plymouth on Monday morning, and came to moorings in the Sound, with the yellow flag flying. The Customs' officers, however, had no jurisdiction in the matter, nor, in spite of some sapient authorities, had the port sanitary authority, because, by the last paragraph of the 110th section of the Public Health Act, the provisions relating to ships specially exempt "any ship or vessel under the command or charge of any officer bearing Her Majesty's commission, or any ship or vessel belonging to any foreign government." In fact, Queen's ships are very properly considered capable of managing their own sanitary affairs, and their commanders can always, if necessity arise, appeal for aid to the port sanitary authority. It may be observed parenthetically that this paragraph assumed a new shape when the Public Health Act of last year was codified, the practical result of which is that school ships and training ships are now brought within the general provisions of the Act, which classes ships as houses, for all purposes relating to nuisances as well as infectious diseases.

THE POPE'S HEALTH.

THE truth about Pio Nono's health we have authority for believing to be the following. On Friday evening, after the fatiguing receptions and discourses of many days preceding, he complained of an indefinable *malaise*, which was shortly followed by an epileptoid seizure of forty minutes' duration. Dr. Ceccarelli was immediately called in, saw it to be a return of the same attack which had prostrated the Pope on the evening of the 6th November last, and remained all night by the bedside of his august patient. His Holiness slept tranquilly for nearly four hours, and found himself much better in the morning. By Dr. Ceccarelli's orders he has been strictly confined to bed, and while his increasing tendency to congestion of the nervous centres imposes the utmost vigilance on his medical attendants, there is not, we are happy to say, any ground for the grave reports which have been circulated through the foreign journals and exchanges.

THE Bridge Union Sanitary Authority, Canterbury, is agitating for the compulsory registration of infectious disease, and has requested several of the metropolitan bodies to co-operate with it. It recommends that a memorial be addressed to the Local Government Board, urging the introduction into Parliament of a Bill for compelling householders to give notice to the inspectors of the existence of contagious or infectious disease on their premises, also to compel lodgers to give a similar notice to their landlords. The difficulties to the practical realisation and working of such a scheme will strike many people as being nearly insuperable, but most of the objections will be found on examination more apparent than real. We would gladly see legislative enactments in this direction introduced. The information obtainable by a compulsory registration of disease would be of immense value in arresting or suppressing epidemics. We observe that some of the metropolitan boards do not view the project with favour.

THE January number of the *British and Foreign Medico-Chirurgical Review* contains what may be termed a smartly-written article on Railway Injuries *apropos* of Mr. Erichsen's work and various legal reports in *The Times*; a review of some recent works on diseases of women; a short critical notice of an English translation of Kuss's Physiology; papers on the present aspects of Lunacy, on Baths, Waters, and Climate Cures, and on recent literature on Pathological Anatomy, together with several original contributions and the usual reports on physiology, surgery, toxicology, &c. One of the articles deals with the recent discussions as to the identity or otherwise of croup and diphtheria, and, in concluding, puts the case as follows:—"We may observe that although, as Dr. West remarks, the last word has probably not yet been spoken as to the relations existing between croup and diphtheria, yet the points at issue have

now been narrowed into a very small compass. The advocates of what we may term the unitarian view do not maintain, as far as we can learn, the identity of tracheal diphtheria with infantile laryngitis, but precisely the reverse; and, *à fortiori*, they entirely exclude from consideration all cases of what are called 'spasmodic croup.' The only questions to be now solved are, in the words of Sir William Jenner, 'Is there a membranous inflammation of the larynx distinct from the acute specific disease diphtheria? are there a true croup and a diphtheritic croup?'"

THE indecent practice of holding inquests at public-houses will not, we hope, continue to be a reproach to society much longer. A movement for providing suitable premises where the coroner and jury may pursue their inquiries with comfort has been on foot for some time, and we frequently learn of the establishment of a private court in order to obviate recourse to the adjoining tavern. A coroner's court for Paddington, situated adjacent to St. Mary's Hospital, has just been opened. It contains an elevated platform for the coroner, with ample accommodation for the jury, witnesses, the press, and the public.

MAJOR BOLTON, water examiner, in his monthly report for December last, again says that many of the causes of complaint received by the Local Government Board as to the quality of the water delivered for domestic purposes by the metropolitan Water Companies were found on inquiry to be attributable to the dirty state of the cisterns on the premises of the complainants. All cisterns should be frequently cleaned out, and householders are admonished to exercise great care in preventing the contamination of the water-supply after delivery on their own premises.

MR. JOHN LIDDLE, medical officer of health for Whitechapel, called the attention of the Society of Medical Officers of Health, at their last meeting, to the importance of obtaining direct and immediate information as to cases of zymotic disease from all general practitioners. We referred to the subject briefly last week, and hope that the continued and emphatic expressions of opinion on this important subject will induce all concerned to aid preventive officers in the execution of their duty.

THE many friends and admirers of the late Mr. James Hinton may be glad to know that Messrs. Barraud and Jerrard, the photographers, of Gloucester-place, Portman-square, have some excellent likenesses of a man who was an original and subtle thinker, and possessed many exceptional qualities of mind and character.

PROFESSOR SANDERSON ON THE PROCESS OF INFLAMMATION.

LECTURE III.

THE lecture (delivered on December 20th) began by recapitulating the conclusions of Mr. Lister as to the nature of the vascular changes which constitute the early stages of the process of inflammation, according to which, in the first place, the dilatation of the arteries, which must be regarded as the central fact of the *primary* afflux of blood, is due to suspension of the action of a "peripheral co-ordinating apparatus" capable of being acted on independently of the cerebro-spinal nervous centres; and, secondly, the increased resistance in the capillary system, of which we have evidence in the phenomena of congestion and stasis, is to be attributed to impaired vitality of the bloodvessels. With reference to the latter of these doctrines, it was clearly pointed out that it has nothing in common with that of "capillary force." It does not imply that any part of the motion of the blood originates by liberation of energy resident in the tissues or capillaries, but, in accordance with the teaching of Harvey, assigns the whole of the mechanical work done in the maintenance of the circulation to the heart.

Mr. Lister's paper appeared in 1858. In 1868 a new name connected itself with the history of inflammation—a name already as familiar to all of us as those of Paget, Virchow, Lister, or Simon. Cohnheim formulates his conception of inflammation in terms which, at first sight, seem to resemble those employed by Lister—"Alteration of the physiological state of the walls of the vessels is the determining cause of those phenomena and processes which we commonly recognise as acute inflammation." It would, however, be a great mistake to suppose that the ideas of Lister had any influence on his successor, for in fixing on the vessel-wall as the seat of all that is essential in the process of inflammation, Cohnheim was wholly uninfluenced by any theory, either preconceived in his own mind or derived from others. It was the direct outcome of his own great discovery as to the mechanism of exudation—a discovery which, so to speak, took everyone by surprise, for this very reason, that it was not led up to, as so many discoveries are, by anything which had come before either in the way of theory or observation.

Before Cohnheim, we thought of exudation as consisting in the sweating out from the bloodvessels of the liquid part of the blood, and particularly of its fibrin-producing constituent. Now we have to add to this conception that of the squeezing out of the corpuscular elements. From the first moment that the new fact was accepted as true, it was at once seen by its discoverer that it bore upon every question relating to the nature of exudation, and the conditions on which it is dependent. He therefore devoted himself during the eventful years which followed the publication of the celebrated paper "On Inflammation and Suppuration," to those elaborate investigations on the pathology of the circulation which are recorded in the essay "On Embolism," published in 1872, and in the Researches on Inflammation, which appeared in 1873. It is remarkable that facts which were of the greatest value in the elucidation of inflammatory exudation were brought to light by the experiments on embolism. By these experiments it was shown for the first time that the essential anatomical condition for the production of embolic infarction is, that the obstructed artery should be a terminal one—i.e., an artery of which the branches do not communicate directly with those of any collateral. In accordance with the well-established principles which govern the circulation, he showed that if such an artery is plugged, the whole vascular system of the region supplied by it becomes filled with stagnant blood derived from the veins, and that the resulting sanguineous infiltration of the tissue is dependent on extravasation which takes place through the walls of the capillaries, notwithstanding that there is no solution of continuity of their walls. These facts soon led to the inference that the reason why the corpuscles find their way out of the vessels in this case, is to be sought for in the alteration of property which the capillaries sustain in consequence of the cessation of the circulation.

Following out this consideration, Cohnheim was led to inquire what would be the result if an organ were deprived of blood for a time without being the seat of hæmorrhagic infarction. With this view, a number of experiments were made (the most important of which were fully described in the lecture), of which the general result was as follows. Whenever, in a mammal, the circulation is completely arrested in an organ (as, for example, in the ear of the rabbit) by the simultaneous occlusion of arteries and veins for a sufficient number of hours (the time varying according to the kind of animal under observation), it is observed that immediately after the restoration of the circulation there is an abundant afflux of blood in the organ so acted upon, which in consequence becomes intensely red and hot, the arteries being dilated to more than twice their natural size, and the temperature of the part higher by several degrees than that of its fellow. Within half an hour the arteries have returned to their normal state, but the part, before merely hyperæmic, has become œdematous. On puncturing it, it is found that the infiltrated liquid is loaded

with colourless corpuscles—is, in fact, purulent; in a word, the condition of the tissue is that of acute corpuscular infiltration, with this remarkable characteristic, that it affects equally the whole of the region previously deprived of circulation, and does not extend beyond it. What is to be learnt from the observation is this, that the privation of blood, when continued, say for sixteen hours, is so damaging to the tissue of the organ placed under this condition that, although it looks perfectly healthy and natural, so long as no blood is circulating, it is in reality *in the state of an inflamed part*. To prove its condition, all that is wanted is the restoration of the circulation, for no sooner is this effected than the ordinary phenomena of inflammation manifest themselves. It becomes hot, red, swollen, and no doubt painful.

In order to connect this counterfeit process—identical with inflammation in result, though different in origin—with the succession of effects ordinarily produced in a tissue by injury, it must be contrasted and compared with them as they exhibit themselves in the same field of observation. This comparison has been made by Cohnheim with wonderful completeness and accuracy. Among the most remarkable of the experiments he has made with this view, are those which relate to the inflammations produced by exposure to heat and cold respectively—noxæ of which the action is probably simpler than of any others. When the ear of the rabbit is surrounded for a short time by a liquid a few degrees below freezing, and then removed, it becomes red and congested, but soon the arteries contract, and the tissue returns to its natural state. If the temperature of the liquid is as much as seven or eight degrees below freezing, the ear reddens in the same way on removal, but the redness soon becomes associated with doughy swelling. If the temperature is still lower, the so-called reaction is correspondingly more intense. The ear not only becomes hot and swollen, but in the microscopical examination of the exuded liquid, or of the tissue after death, you have evidence that the part is in the condition of diffuse suppuration—being, in short, in a condition very similar to that which was induced, with even greater rapidity, after temporary arrest of the circulation. In the action of high temperatures Cohnheim has shown that we have a similar gradation of action, so that the same effects which follow exposure for a short time to a temperature of 16°, are produced with equal promptitude by immersion in warm water of so moderate a temperature as 120°, provided that during the immersion the circulation is arrested, so as to allow the tissue to take the temperature of the medium with which it is in contact. Three degrees only of difference—i.e., raising the temperature from 120° to 124°—are sufficient to convert non-inflammatory into inflammatory—i.e., suppurative—œdema, and if this point is exceeded, death of the part, to a greater or less extent, is the inevitable result.

We have thus two parallel series of effects produced in a living tissue by agents differing entirely from each other, one a purely negative one, the privation of arterial blood, the other a noxa of the simplest kind: cold or heat, as the case may be. In both series we have the effects following each other in the order of their intensity, in the *former* according to the *time* during which the part has remained without circulation, in the latter according to the temperature. In both cases the relation between cause and effect is so well ascertained, that if, for example, it is known how long the arrest of circulation has lasted, it can be predicted with certainty whether determination of blood, congestion with œdema, diffuse suppurative infiltration, or gangrene, will be the result; and in like manner, by regulating the temperature to the required point by the thermometer, we can as well determine beforehand the supervention of either of these several degrees of inflammation.

Clearly the same close relation between cause and effect, between noxa and lesion, holds good throughout the pathology of inflammation; and if this is so, it appears that no view can be taken of the process of inflammation more simple, and at the same time more satisfactory, than that which was enunciated in the first lecture—namely, that inflammation is nothing more than the aggregate of those results which manifest themselves in an injured part as the immediate consequence of the injurious action to which it has been exposed.

[*Erratum.*—In the report of Lecture II., the word "moxa" should have been noxa.]

Correspondence.

"Audi alteram partem."

THE UNIVERSITIES AND MEDICAL DEGREES.

To the Editor of THE LANCET.

SIR,—In your leading article of to-day on this subject, one important point seems rather to have escaped your consideration—viz., that the value of a title or degree, like that of most other things, is not a little estimated by the difficulty experienced in obtaining it. The title of Doctor of Medicine, there seems some reason to fear, is likely to be so easily assumed that it will be scarcely worth the assuming; and a large number of medical men will probably, ere long, prefer, as some now do, to be without it. The *degree* of Doctor of Medicine at a University, however, will retain its value so long as it is felt to represent a higher mental culture, and, in the case of the Oxford and Cambridge degree, that social culture and the other advantages which are regarded as connected with a residence at those Universities. Now this higher mental and social culture necessitates the expenditure of time in its acquisition, and that involves the expenditure of money. This is the real difficulty in the way of obtaining a degree at the old Universities, and I think it will puzzle you to suggest a plan by which this can be lessened much more than has already been done without lowering the value of the degree in a manner which I am sure you would be the last to wish. Some years since, it is true, there were other difficulties, such as those arising from religious views &c., which had the effect of dissociating the profession from the Universities. These have been entirely removed; but it takes some time to awaken the country and the profession to the fact that there is no barrier whatever against a degree at the old Universities, except the time and the knowledge required. Even the former has of late been practically much reduced: first, owing to the arrangements by which the examinations in the subjects of general education may now be passed at the very commencement of the University career, or even, through the "Oxford and Cambridge Schools Examination Board," before the student comes into residence, so that the whole, or nearly the whole, of his time at the University may now be spent in the study of Natural Science and Medicine; and, secondly, there is now so much instruction and opportunity for work in these subjects, both at Oxford and Cambridge, that the old Universities offer at the present time (in my opinion) to the industrious and intelligent student the very best entrance into the profession. I do not mean to say that we should be content. Contentedness in such a matter savours of that dulness which is akin to deadness. Not to go on improving our educational system is certainly to go back; and if we go on, there is, I feel sure, a great future before the Universities in relation to the medical as well as the general education of the country. The improvement must not be looked for much in the direction of lessening the time, or the expense, or the standard of knowledge required. To lower the last, high though it undoubtedly is, would be fatal; and I question whether its maintenance is compatible with any material further reduction of either of the other two.

The number of degrees in Medicine conferred is, unquestionably, far too small. This, however, must now increase, as the number of students entering is increasing, and persons are beginning to be aware that the Universities are not only freely open, but are good avenues to the profession; and the expense attendant on university education is not disproportionate to the standard of knowledge required. It must, however, not be forgotten that many of our students do not proceed to the degree of Doctor. Some are content with the degree in Arts, some with the degree of Bachelor of Medicine, and some with the licence to practise obtained elsewhere, finding that they are not equal to obtain the degree here; so that the influence of Cambridge upon the medical profession must not be estimated solely by the number of degrees conferred. The spirit of this University, and the same, I believe, may be said of Oxford, is essentially liberal, as much as that of any body with which I am

acquainted, or more so. It is favourable to the prosecution of medical as well as of other science. Medical degrees have been rendered more accessible by the improvement of education and the lessening of expense, so that they are within the reach of anyone who can afford to spend a year or two more on his education than the time required for an ordinary diploma, and who can attain to the requisite standard of knowledge; and I have no doubt that any proposal, from any quarter, would be well received which is likely to be of real benefit to the profession and the public.

I am, Sir, yours &c.,

Cambridge, Jan. 15th, 1876. G. M. HUMPHRY.

*** We are quite content at present with the admission made by Professor Humphry. He will not charge us seriously with any wish to dissociate the possession of University degrees and a considerable amount of general and professional culture. We indicated in the article which he criticises that, in our opinion, the prime business of the Universities was to allure and assist every class in the nation to a higher culture, and especially to put themselves into such relation with the professional classes as to give them the best chance of becoming scientific in the broadest sense of the word. The professional classes are a most valuable connecting link between the people and those who teach abstract science. Moreover, the people have a great interest in the development of the scientific spirit in the professional classes. For the title of "Doctor of Medicine," apart from the possession of a university degree, we have something less than a want of respect, as we have lately very plainly said in another connexion, and as we say again to-day. But if the practitioners who assume the title of "Doctor" have any sort of excuse for doing so, it is in the frigid bearing of the Universities towards them and their profession. Surely the Universities which have shown themselves capable of entering into vital relations with the common schools of the country, could have no insuperable difficulty in putting themselves into more inviting relations with the medical schools. Dr. Humphry himself says the number of degrees in medicine conferred by the Universities is, unquestionably, far too small. It is about two a year or less in Cambridge and Oxford. We know that the reason for this is not in the indisposition of men to take degrees, but in the impracticability of the terms of the Universities for those whose main business in life is to be learned in the art of healing. We heartily accept the assurance of Professor Humphry that proposals from any quarter will be well received, which are likely to be of any real benefit to the profession and the public. We commend to his notice a suggestion in another letter which appears in our impression of to-day. Meantime it is only fair to say that Cambridge has a very respectable medical school, and that all the courses required for admission to the first professional examination of the College of Surgeons, as well as to the second M.B. examination at the University, may be very well taken at Cambridge.—ED. L.

To the Editor of THE LANCET.

SIR,—May I venture to send you a few lines on your admirable article in to-day's LANCET on the Faculty of Medicine as it exists in our English Universities? Unfortunately for myself, I have not seen Dr. Morgan's pamphlet; I shall at once get it. In the meantime I would submit to your consideration a few words on a subject to which I have given some little attention for years past.

1. I most cordially concur in your observations on the obligation which lies on the Universities of Oxford and Cambridge "to develop yet farther their medical schools." Cambridge, as you add, has, in its recent action in the matter of State Medicine certificates, shown a willingness to meet the requirements of our day. The only difficulty with regard to the further development of our medical school—which already year by year increases—lies in the amount of residence now required—viz., nine terms, or three years. As Cambridge allows the study of medicine to begin after the Previous Examination has been passed—i. e., at the end of six terms or two years' residence—I think the University might wisely remit the other three terms, and permit the period to be spent in one of the great schools of medicine. Two years' University training in Arts would be priceless to all, and with the great reduction in cost which the unattached students can practise, the course would be within the means of most. Medicine, alas, is a poor profession, and all our arrangements must be limited by expenditure. Herein the many scholarships now given in science would farther help the Cambridge student.

2. Why should the London University not be compelled to descend from the clouds? "It is admitted," you say, "that the conditions for obtaining the London degree are impracticably difficult to the great majority of men." Why should this absurd state of things be allowed to continue? The charter was surely conferred on the University for the advantage of the many, and London should be required to add to its present high honour standard a good pass degree, which the average student of the London schools might with proper training obtain. Moreover, I take leave to doubt whether this forcing system, applied to all its students, has led to any great results. The London degrees are yet far from rivaling Oxford and Cambridge in public estimation, while in the race of life I have not found the London graduates the formidable competitors their achievements in cram examinations might have led me to fear. I think that in this reform of the London University, and its adaptation to the requirements of the London medical schools, is to be found the relief of "practitioners wanting degrees and willing to submit to a reasonably testing examination" to whom you refer. Hitherto the advocates of their cause have been loud in their complaints of the requirement of residence by the Scotch University Commissioners. But why, may I ask, should the Scotch Universities be called upon to provide degrees in medicine for Englishmen who cannot satisfy their own Universities? The fame of the Scotch Universities, and specially of the great Medical School of Edinburgh, suffered sensibly in former years by the mass of illiterate general practitioners who graduated at St. Andrews and Aberdeen; and I for one rejoice that this system has been brought to an end. If the permission left to the University of St. Andrews to grant yearly ten degrees to men forty years of age without residence were given by selection as honorary degrees, I think the duty of the Scotch Universities to the medical profession would be well and fully done. I doubt myself whether there are more than ten practitioners each year deserving, by their scientific work, of the honorary doctorate; while to set about examining men at forty years of age for a scientific degree is alike childish and futile as any test of their fitness or acquirements.

All Universities have hitherto held that residence and systematic training shall precede the granting of their degrees, and none has more positively insisted on this fixed systematic training and regulated course of study than the modern University of London. Why should you call on the Scotch Universities to depart from this time-honoured tradition to meet the requirements or the vanity of the general practitioners of England, when you leave the University of London to pursue unmolested the training and education, as well as examination, of its own graduates?

3. But one word more. The question is now actively discussed in your columns, and will shortly come before the College of Physicians, as to giving the title of Doctor to the members or licentiates of the College. This, I submit, the general practitioners are fairly entitled to when admitted to any degree of membership in the College of Physicians. Doctors they are in public estimation and in their professional calling, and it seems to me but a poor paltry jealousy on the part of the English and Scotch graduates to refuse them this familiar and simple title. A member of the College of Physicians may surely be called a doctor without injury to the *prestige* or rights of the graduate doctors of Cambridge or Edinburgh, and I trust that herein the College of Physicians will pursue its present liberal policy and practice.

I am, Sir, your obedient servant,

Athenæum Club, January 15th. M.D. CANTAB.

ON PUNCTURE OF THE TESTIS IN ACUTE ORCHITIS.

To the Editor of THE LANCET.

SIR,—I am very pleased to find that Mr. Holmes and myself are more in accord on the subject of the puncture of the testis in acute orchitis than the expression of opinion enunciated in his new work on Surgery, and quoted by me, would have led me to suppose, for, in his communication to you of the 15th inst., he says, after quoting the passage referred to, "This passage would have represented my meaning better if I had written 'any *decided* relief' or 'any relief sufficient to justify a proceeding which is not free from either pain or danger.'" Again, he says, "I allow that some relief does often follow, due, as I believe, to the evacuation of the fluid from the tunica vaginalis, not to incision of the albuginea." I felt sure that when Mr. Holmes reconsidered his strong statement in the face of the experience of Vidal de Cassis and my humble self, he would modify it, and I am glad to perceive that he has taken this early opportunity of doing so, instead of waiting until the period arrives when a new edition of his work will be called for.

With reference to the *modus operandi* of the treatment, I do not think there is any mystery or difficulty about it whatever. I think, with Mr. Holmes and Messrs. Watson and MacGill, that in instances where the epididymis is chiefly involved, there is more or less effusion into the tunica vaginalis, and that relief is given by withdrawing this fluid. In other cases, of what Vidal called parenchymatous orchitis, I believe with him, that the sudden and great relief is produced by the puncture of the albuginea, and in either instance, as I stated in my paper, I believe that the loss of blood may be a great factor in the phenomena produced. As regards my inability to explain how it is possible to take off the tension from the swollen testis by the incision of its envelope, without producing any hernia of the tubes, I do not pretend to explain it, but I remain contented with the fact that this protrusion has not taken place except in the one instance where, as I mentioned, a strumous young man received a severe blow on the testis the day after it was punctured, and here the protrusion was but slight.

I am obliged to Mr. Holmes for calling my attention to the cases of the two unfortunate French soldiers who each lost a testicle after it had been punctured, but there is no evidence to prove that the organ was not destroyed by the violence of the inflammatory process itself. I quoted two instances I had seen in my own private practice, where in young persons the organ had been totally destroyed by the violence of the inflammatory process, and where no puncture had been resorted to.

Mr. Holmes states that the late Mr. Henry Charles Johnson taught him that in cases of orchitis "free leeching, nauseating doses of antimony, and other so-called heroic remedies, were unnecessary." I entirely agree with such good advice; but with reference to the treatment of acute orchitis by "supporting the testis in a good poultice," and keeping the patient in bed, it must be borne in mind that in by far the majority of the cases met with in hospital practice the sufferers are able-bodied working men, who certainly cannot follow the avocation, say of a costermonger, porter, or common labourer, and at the same time adopt such treatment; and that is the very reason why puncture of the organ is so very valuable, as the relief is so great and speedy that in the majority of cases the patient is enabled to proceed to his work on the very same day, or on the day following. In private practice, too, it will be found that healthy vigorous young men demand a more speedy remedy and quicker relief from pain than that which can be afforded by lying in bed, and by the comfort and support even of the most skilfully made poultice; hence in the comparatively few instances where I have punctured for orchitis in my private practice, I have been led to adopt it mainly because I could promise the most speedy relief, and put the patients on their legs in a few hours. I doubt not that it was from an acquaintance with these facts that I have been summoned by medical students belonging to various institutions in this city, and who knew what my treatment would be, and have willingly submitted to it.

Mr. Holmes has drawn an amusing picture of the thousand out-patients who have had their testicles punctured, going away laughing with delight, and living happily ever after. Such a blessed and peaceful consummation as this I cannot hope for from my favourite remedy—it would be expecting too much; but, at the same time, I must say I have not yet met with the dismal occurrence of the loss of the organ, so graphically alluded to by him, not only not in a few, but not in one case. Possibly such an event has occurred, as I have shown it has happened after an acute attack of orchitis where puncture has not been adopted; however, Vidal de Cassis seems to have had on this point a more satisfactory experience than myself, for this surgeon had the good fortune denied to myself to be able to follow the history of his cases; and I cannot do better, in concluding this letter, than quote the words of this eminent French surgeon on the two points at issue—viz., the relief given by the treatment and the possibility of atrophy of the organ:—

"I have operated on more than 400 cases in private practice and at the Hôpital du Midi. It has never been followed by the least accident, and generally in half an hour or an hour the patient is greatly relieved. I have adopted this plan of treatment when other energetic measures have failed; the result has been the same relief, prompt and decided. As to the production of atrophy, I can speak from great experience, for all of my patients have been strictly watched in reference to this matter, and that, too, for a long time after this operation, and in no instance has the testicle become diminished in size or consistence."*

I am, Sir, yours obediently,

Wimpole-street, W., Jan. 17th, 1876. HENRY SMITH.

To the Editor of THE LANCET.

SIR,—I have read Mr. Henry Smith's communication on the treatment of acute orchitis by puncturing the testicle, and the correspondence it has called forth, with much interest.

I have been Mr. Smith's colleague in the out-patient department of King's College Hospital for some years, and have followed his plan of treatment in all cases of acute orchitis coming under my care. It is, in my opinion, a valuable proceeding, as it gives, in all cases, relief, and in some the relief gained is very great. Patients have expressed themselves as being much relieved without being asked the question, and have in some instances returned for a repetition of the treatment when attacked at a subsequent date with the same complaint.

I have followed this plan of treatment in private cases whenever I have been able to persuade the patient to submit to it; in some cases not until rest in bed, fomentations, &c., have been tried in vain. I am of opinion that the ordinary treatment has not much effect upon the progress of the complaint, and that its cure is by resolution of the inflammation by nature, who, on this occasion, shows more of that quality than surgeon or patient.

I find that to tell my out-patients at the hospital to lie in bed, foment, apply leeches, and take medicine, is advice thrown away, as they tell me too often that they have not a room to themselves, or that they live in a common lodging-house; in these cases puncturing is assuredly the best proceeding.

The cases calling for the treatment are those of epididymitis and acute orchitis, when the pain is so great that the patient cannot bear the organ to be touched. A narrow-bladed knife, as a Paget, is stabbed into the testicle; this allows exit to blood and sometimes to some serum and blood; in either case, as far as my experience goes, relief is at once given.

If it is shown that the same relief follows puncture of the tunica vaginalis only, I shall be glad to adopt the practice as being less formidable. Next to puncturing the testicle, leeches, with warmth and rest, give the most relief, and I would suggest that they should be applied in the morning, by preference, as they are messy, and cause some annoyance by staining the night-shirt and sheets with blood.

I have met with no bad results in my cases, but admit that the great drawback to out-patient practice is, that one

* Vidal on Venereal, p. 138, by Blackman.

loses sight of one's patient; but I fancy that if any disaster attends a particular line of treatment, one gets to hear of it through the kind remarks (sometimes clinical) of a contemporary.

I am, Sir, your obedient servant,

Harley-street, Jan. 17th, 1876. H. ROYES BELL.

UPPINGHAM SCHOOL.

To the Editor of THE LANCET.

SIR,—As I am receiving numerous letters from medical attendants, parents, and others, asking me to inform them whether it is safe to send scholars back to this school on the 21st inst., I should esteem it a favour if you would allow me to state, through the medium of your journal, that I have no evidence before me as to whether or not the necessary structural alterations in the different houses have been completed, and the recommendations in my report, which was read on Saturday last only, as to the *final* disinfection of the infected houses, have been carried out.

I certainly cannot recommend the return of the scholars until I have reason to believe that everything has been done that I consider necessary to ensure the safety of the boys.

I am, Sir, your obedient servant,

ALFRED HAVILAND,
Medical Officer of Health to the Uppingham Rural Sanitary Authority.

Northampton, January 17th, 1876.

To the Editor of THE LANCET.

SIR,—I should esteem it a favour if you would give publicity to the concluding paragraph of Mr. Rawlinson's Report on the School Houses at Uppingham. The report itself may be purchased for 3d. at Mr. Hawthorn's, bookseller, Uppingham.

Mr. Rawlinson concludes with these words:—"I am of opinion that the trustees and masters have improved the sewerage, drainage, ventilation, and water-supply of the several schools in the best practicable manner, and that these establishments may be considered in all these respects as perfect as any houses can be made.—(Signed) ROBERT RAWLINSON."

The report will repay perusal to any person interested in Uppingham School, as some of the facts connected with its progress appear in it.

I am, Sir, your obedient servant,

EDWARD THRING, Head Master.

The School House, Uppingham, Rutland, Jan. 15th, 1876.

*** We have great pleasure in giving publicity to Mr. Rawlinson's statement, taken from his report, that the school-houses at Uppingham are now, in respect to sewerage, drainage, ventilation, and water-supply, "as perfect as any houses can be made," and, therefore, safe for the boys to return. We understand that Mr. Haviland's (the medical officer of health for the combined Northampton districts) report on the causes of the late outbreak of enteric fever, will soon be ready. It will be interesting to contrast the two reports, the one dealing with the deficiencies which led to the outbreak, the other showing the means that have been adopted to prevent its recurrence. This we propose doing as soon as both reports are in our hands.—ED. L.

THE CATGUT LIGATURE.

To the Editor of THE LANCET.

SIR,—In speaking of the action of a catgut ligature tied on an artery in its continuity, Dr. Ebenezer Watson says, in your last number, "We know that the catgut ligature becomes softened in a few hours so as to lose its compressing power, and it is very soon thoroughly liquefied." This is certainly not always the case, as proved by a preparation which I exhibited a short time since at the Clinical Society, and which is now in the museum of St. George's Hospital. The patient died exactly seven days (to an hour) after the ligature of the femoral artery for aneurism with carbolised catgut. The ligature stills holds the walls of the artery firmly in contact, and though the rest of it is indistinguishable, being buried in the tissue of the arterial wall, the knot remains in position, so that probably the string itself is not dissolved. If it were true that the catgut ligature only compresses the vessel for a few hours, I do not believe that it would be so successful as it is in the cure of aneurism. The catgut ought to be very stout, so as to bear to be tied sharply and tightly, in which case it will divide the internal coats of the vessel like a silk string.

I am, Sir, yours, &c.,

January 15th, 1876. T. HOLMES.

THE LONDON COLLEGE OF PHYSICIANS AND THE TITLE OF "DOCTOR."

To the Editor of THE LANCET.

SIR,—Most right-minded men will, I believe, resent the action that some of the members of the committee of the College of Physicians of London desire to take respecting the titles of the fellows, members, and licentiates of the College. A very large number of those who possess the College diploma are not a little proud that it is a *bonâ fide* qualification, and free from the misleading pretensions of a diploma of the Edinburgh College. I must confess that I am one of these, and should the London College seek to invest its constituents with a false glory by bestowing upon them a courtesy—that is a sham—title of "Doctor," I shall be as ready as "An Old L.R.C.P." to give up my diploma.

I am, Sir, yours, &c.,

L.R.C.P. LOND.

Obituary.

RICHARD HASSALL, M.D.

WE lament to have to record the death of Dr. Richard Hassall, which took place on the 13th of December, 1875, at his residence, St. George's-square, London.

Dr. Hassall was born at Chelmsford, in 1811. His father and grandfather were both medical men, in the north of England. His father, Mr. Thomas Hassall, was born in Sunderland; he was appointed a captain and surgeon to the Durham Fencibles, a regiment raised by the county of Durham, and which served in the Irish Rebellion, 1798. He was at the battle of Wicklow, under General Skerrit, where he received a wound which deprived him of the sight of one eye, and for which he received a pension. He afterwards became surgeon to the 1st Surrey Militia, an appointment he retained for thirty years, and in which he was succeeded by his son, Dr. Richard Hassall. For several years Mr. Thomas Hassall practised at Teddington, where he attended for some time the family of the Duke of Clarence, afterwards William IV., and lost, by an accident, the appointment subsequently held by Sir David Davis.

Dr. Richard Hassall was the second son of Mr. Thomas Hassall, who married Miss Sherrock, of Downpatrick. The eldest son was lost at sea; the third son is the present Dr. Arthur Hill Hassall, physician to the National Hospital for Consumption, and author of several valuable contributions to medical literature. The Hassall family seem to have had a strong predilection for the medical profession, for not only was Dr. Richard's father a medical man, but his grandfather and one uncle, Mr. Richard Hassall, were also medical men, whilst his younger brother, as we all know, has long been a distinguished member of the same profession.

Dr. Richard Hassall entered the profession somewhat late in life, and subsequent to his younger brother, studying at the Charing-cross Hospital, under Mr. Henry Hancock and Mr. Francis Hird, and others, to whom later he became greatly attached. He began practice at Richmond, secured a large connexion, and remained there until about two years before his death, having realised a handsome competence. He subsequently came to London, and took chambers in Suffolk-place, Pall-mall, where he practised with great success until a few weeks before his death.

Dr. Hassall was twice married; first to Mrs. Gibbons, of

Richmond, and secondly to Miss Alicia Goddard, daughter of the late Archdeacon Goddard, by whom he leaves four children. Dr. Hassall was an excellent practitioner, cautious without timidity; a warm-hearted friend, and a kind, good, faithful, and earnest man in all things.

During his illness Dr. Hassall received the greatest kindness and unremitting attention from his medical attendants, Sir William Fergusson, Sir James Paget, Mr. Hancock, Mr. Hird, and Dr. Smith.

THOMAS WEBB, L.R.C.P. EDIN., M.R.C.S. ENG., L.S.A.

IT is our painful duty to record the death of this venerable practitioner, which took place at Barton-under-Needwood, Staffordshire (where he had practised fifty years), on the 8th January. His memory will be long cherished in that neighbourhood for his kindness to the poor and his honourable relations to his professional brethren. Dr. Webb was the youngest son of Robert Dalway Webb, Esq., of Dunshaughlin, Co. Meath, Ireland, by Mary Anne, daughter of Thomas Wilson, M.D., of Cavan. During the course of his long career he held many public appointments in the district and performed some of the most difficult operations in surgery, amongst them amputation at the hip-joint. We believe he was the father of the profession in the county of Stafford.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the examinations in Anatomy and Physiology at meetings of the newly appointed Board of Examiners during the week:—

J. L. Poynder, F. C. Gayton, B. M. Rowe, C. B. Gabb, F. T. Good, W. B. Palmer, F. W. Ellison, and W. E. Husband, St. Bartholomew's Hospital; F. B. Maclean, R. S. Taylor, E. R. Mansell, and W. Gibson, Guy's Hospital; W. S. Lightfoot, W. W. Lake, R. H. E. Knaggs, G. V. Burd, E. Landon, F. A. De Verteuil, and T. Newington, St. Thomas's Hospital; S. W. Woollett, A. W. Leighton, B. E. de Lautour, H. E. Bowman, H. D. Morgan, W. G. Reid, H. C. Taylor, W. Chalmers, and G. S. Eastment, King's College; E. Eccles, W. Graham, and J. Moorhead, Dublin; F. S. Cowan and F. P. Bartlett, St. George's Hospital; W. Flewitt and M. W. C. Percival, Birmingham; S. C. Harris and H. C. Oakley, Westminster Hospital; H. E. Ambler and G. A. l'Anson, Middlesex Hospital; J. S. Langdon, R. Rigden, K. H. Yoshida, J. D. Hoppus, and A. W. Galloway, University College; T. A. Nixon, Newcastle-on-Tyne; E. W. Whitlock and R. W. Hewson, Edinburgh; J. P. Wagstaff and J. W. Lawton, London Hospital; H. S. Bott, Manchester and University College; A. E. Cheshire, Birmingham and Guy's Hospital; H. G. Orlebar, Aberdeen; J. Johnson, Melbourne Hospital.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on Jan. 13th:—

Greene, Richard, Hayward's-heath, Sussex.
Stewart, Wm. Robert Henry, Harley-street, Cavendish-square.
Watters, George Thomas Brown, Belleville, Edinburgh.

The following gentlemen passed the Primary Professional Examination on the same day:—

William Wood Cuthbert and William Henry Webb, St. Bartholomew's Hospital.

DR. TILT has been elected an Honorary Fellow of the Obstetrical Society of Philadelphia.

DR. ALFRED MEADOWS has been elected an Honorary Fellow of the Medical Society of Sweden.

THE Vestry of St. James's, Piccadilly, have decided to erect a mortuary in a central part of the district. The motion gave rise to considerable discussion at the last meeting of the Board, one member proposing to build "an Egyptian temple in the churchyard, at a cost of £3000."

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A Quarterly Court of the Directors of this Society was held on Wednesday, January 12th, by the permission of the Royal Medico-Chirurgical Society, in their rooms, Berners-street. In the unavoidable absence of the president, Mr. J. G. Forbes, vice-president, presided. At the meeting grants amounting to £1143 were made to 57 widows, £52 were voted to 13 children, and assistance was given from the Copeland Fund to 4 children, making a total of £1220 10s. The expenses of the quarter were £66 11s. The applications of two widows and one child for grants were accepted, and one child was added to those receiving assistance from the Copeland Fund. Four new members were elected.

Medical Appointments.

BATH, G. P., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer of Health for the Parish of St. Matthew, Bethnal-green, vice Sarvis, deceased: £200 per annum.

BICKERSTAFFE, R., M.D., C.M., has been appointed House-Surgeon to the Darlington Hospital and Dispensary, vice Lawrence, resigned.

BLAKISTON, A. A., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Benenden District of the Cranbrook Union, vice Minors, resigned.

BOWKETT, W. D., M.R.C.S.E., has been appointed Resident Medical Officer to the Bolton Union Workhouse at Fishpool.

CAMPBELL, J. A., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Resident Medical Officer to the Friendly Societies' Medical Institute, Northampton, vice Turner.

CARLINE, W. A., M.B., C.M., M.R.C.S.E., has been appointed House-Surgeon and Apothecary to the Lincoln County Hospital, vice Lill.

CARR, C. J., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the West Drayton District of the Uxbridge Union.

ELLIS, E. H., L.K.Q.C.P.I., L.M., M.R.C.S.E., has been appointed Medical Officer to the Odd Fellows, Bangor, vice Williams, deceased.

GOBAT, J. T., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for No. 5 District of the Wrexham Union, vice Price, resigned.

JACKSON, P. J., M.R.C.S.E., has been appointed House-Surgeon to the Surrey Dispensary, Great Dover-street, vice Penny, resigned.

KENNY, J. H., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for No. 3 District of the Parish of Birmingham, vice Suckling, resigned.

MACAN, A. V., M.B., M.C. (Senior Assistant-Physician to the Rotunda Lying-in Hospital), has been appointed Gynæcologist to the City of Dublin Hospital, vice Dr. Barker, appointed Surgeon to University College Hospital.

PINDER, T. H., M.R.C.S.E., has been appointed a Surgeon to the Manchester Institution for Diseases of the Ear, vice M'Keand, resigned, and since deceased.

SLOAN, S., M.D., C.M., has been appointed an Assistant Physician-Accoucheur to the Glasgow Lying-in Hospital.

TANDY, B. I., L.R.C.P.Ed., L.R.C.S.I., has been appointed Medical Officer and Public Vaccinator for No. 4 District of the Risbridge Union, Suffolk, vice Whitlock, resigned.

WILLAN, R. M., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the No. 4, or Leigh District of the Martley Union Worcestershire.

WOOD, T. O., M.R.C.P.Ed., F.R.C.S.Ed., M.R.C.S.E. (Assistant Medical Officer of the Kent Asylum, Maidstone), has been appointed Resident Medical Superintendent of the Isle of Man Lunatic Asylum, Douglas, vice Harrison, deceased.

Births, Marriages, and Deaths.

BIRTHS.

BARTLETT.—On the 10th inst., at Sydney-place, Onslow-square, the wife of J. P. Bartlett, M.R.C.S.E., of a son.

EDGELOW.—On the 13th inst., at Hertford-street, Mayfair, the wife of Geo. Edgelow, M.D., of a daughter.

HURLSTONE.—On the 7th inst., at Richmond-gardens, West Brompton, the wife of M. de Galway Hurlstone, M.R.C.S.E., of a son.

LEADAM.—On the 16th inst., at Gloucester-terrace, Hyde-park, the wife of Wm. Ward Leadam, M.D., of a daughter.

LIVEING.—On the 4th inst., at Manchester-square, the wife of Robert Liveing, M.D., of a son.

ROBERTSON.—On the 19th inst., at West Dulwich, the wife of W. B. Robertson, M.D., of a son.

WALKER.—On the 14th inst., at King Edward-road, Hackney, the wife of W. N. Walker, jun., M.R.C.S.E., of a son.

MARRIAGES.

BURROUGHS—EVANSON.—On the 15th inst., at Nenagh Church, Hastings W. Burroughs, L.R.C.S.I., to Ada Kathleen, daughter of the late Rev. A. M. Evanson.

DOLAN—MARSHALL.—On the 11th inst., at Gorton, Thomas M. Dolan, L.R.C.P.Ed., to Frances, daughter of Charles Marshall, Esq.

DEATHS.

BLAKE.—On the 14th inst., at Richmond, Surrey, W. J. R. H. Blake, M.D., aged 40.

COLLIER.—On the 13th inst., at Milverton, Warwickshire, Thomas Collier, M.R.C.S.E., aged 71.

COTTINGHAM.—On the 9th inst., at Mare-street, Hackney, E. C. Cottingham, M.R.C.S.E., aged 50.

CRONIN.—On the 17th inst., at Clarence-place, Queenstown, W. J. Cronin, F.R.C.S.E.

DEAS.—On the 15th inst., at Heriot-row, Edinburgh, Sir David Deas, K.C.B., L.R.C.S.Ed., Inspector-General of Hospitals and Fleets (retired list), aged 69.

DOHERTY.—On the 11th inst., at Redcastle, Donegal (after an illness of two days), Richard Doherty, M.D., J.P.

LAMBERT.—On the 15th inst., at Bootham, York, Thomas Tyas Lambert, M.R.C.S.E., aged 65.

MARSH.—On the 17th inst., at Dante-road, Newington-butts, Thos. J. Wm. Marsh, M.D., aged 56.

NOOTT.—On the 12th inst., at Cardigan (after a lingering illness), Wm. L. Nootт, M.R.C.S.E., aged 71.

STUTTER.—On the 17th inst., at Upper Sydenham, F. A. Stutter, M.D., aged 49.

VALENTINE.—On the 4th inst., at Maiden-Newton, Dorsetshire, John Valentine, M.R.C.S.E., aged 77.

[N.B.—*A fee of 1s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

Notes, Short Comments, and Answers to Correspondents.

EDINBURGH CITY AND ENTERIC FEVER.

A RECENT communication alluded to the alleged immunity of a certain portion—the oldest, most crowded, and in some respects most primitive and insanitary portion—of Edinburgh from typhoid fever and diphtheria, as compared with the fashionable and modern part, where the houses are provided with all modern conveniences, in the shape of waterclosets and drains. However disgusting the practices may be in regard to conservancy arrangements and removal of excrement in the old town, still such matters are removed in the Corporation carts, and their temporary detention in the houses is productive of less evil, of course, than the more constant and steady emanations of sewer air into a house, especially when these spring, as they must sometimes do, from excreta of a specific kind. The lesson we take to be this, that the watercloset system, notwithstanding its advantages when efficiently carried out, with proper and adequate provision against this contamination of the inside air, is obviously a more constant and wider source of danger, without such precautions, than a ruder and even disgusting plan that entails, nevertheless, regular and systematic removal. That enteric fever and diphtheria should prevail so disproportionately, as alleged, in the fashionable or new town, only proves that the evils on which we have remarked have not been adequately recognised and guarded against. The fact, too, that typhus is very prevalent in the old, while it is rare in the new, portion of the city, serves to demonstrate the very different nature of the causes productive of the two forms of fever in question, and points the practical lesson that Mr. Simon's department are always inculcating.

Medical Practitioner.—The best work on the Diseases of the Eye is Lawson's or Wells's; of the Ear, Allen's or Dalby's; of the Throat, Dr. Morell Mackenzie.

THE publication of Dr. Brown-Séquard's lecture will be continued next week

POST-MORTEM EXAMINATIONS AND CORONERS' INQUESTS.

To the Editor of THE LANCET.

SIR,—I have always looked upon those inquests as most unsatisfactory where, in cases of sudden death, a medical man is called upon to give a scientific opinion of its cause without having first made a post-mortem examination, and the impossibility in many cases of doing so without any previous history to guide him. The following most interesting case will convey some idea of the necessity of examining the body post mortem in order to arrive at a positive conclusion.

A few weeks ago an urgent message came from one of the finest of our metropolitan hotels to the medical man who attends there, asking him to go down to see a gentleman who had suddenly expired there. He learned that the gentleman was in the refreshment-room waiting for the last train down, and that he had complained of feeling sick and cold, and for this he had taken a little brandy-and-water, and expressed himself as feeling better. He was advised to remain for the night at the hotel, and to send for a doctor. He came into the hotel and went to bed, but refused to have any advice, saying that he felt better. The night porter was ordered to look in upon him from time to time, and this man upon paying him a visit about twelve o'clock found him lying on his back across the bed, with his legs hanging over one side, his feet on the ground, quite dead, and there was a semi-fluid motion and some urine on the floor just in front of his feet.

This sudden death, I think, might be put down to either apoplexy or diseased heart, or many other things; but the following was discovered on examining the body forty-four hours after death:—Height, six feet; weight, over eighteen stone; age, seventy-seven years. Rigor mortis well marked; no external marks of violence; arcus senilis well developed; pupils rather dilated; body covered with a considerable quantity of fat. Chest: The lungs were healthy, but some amount of old adhesions of left pleura. Pericardium contained the normal quantity of fluid, and there were no adhesions. Heart was large and pale, quite empty; the coronary arteries were extensively ossified, and the heart substance broke readily under the finger. There were extensive deposits on both the mitral and aortic valves; the ascending aorta was dilated and very inelastic, and was studded with calcareous deposits in its whole length. Abdomen: The liver was fatty and pale. The stomach contained about half a pint of semi-digested meat and vegetables. Spleen healthy. The cortical substance of the kidneys was healthy; but the right kidney contained a cyst as large as a hen's egg, and the left several minute ones. On turning up the intestines, an enormous clot of blood was found occupying the meso-colon; and on carefully removing this, the descending aorta was exposed as far as its bifurcation, and there was discovered the true cause of death—viz., an aneurism of this part of the aorta, about an inch above its division, which had burst, and which contained a rent above an inch long in its anterior aspect. This aneurism seemed of comparatively recent date, in that it contained very little old fibrinous deposit. The iliacs were also dilated and inelastic.

Very little history could be obtained from the friends; but it seems he was subject to rheumatism, and used to visit Buxton every year. He was of very active habits.

As bearing on these remarks, I remember some years ago having a very good example of a curious cause of sudden death. It was that of an old woman, who, whilst walking from the parish pay-room one cold winter's day to go to her home, was seen to stagger and fall on to a bank on the roadside. She got up again after a few seconds, completed her journey, a distance of about eighty yards, and, complaining of feeling faint, said she would go upstairs and lie down. Her friends, who were below having their dinner, visited her a short time after, and found her dead.

On making a post-mortem, the pericardium was found full of blood, and one of the coronary arteries was found to have been ruptured.

Your obedient servant,

London, Jan. 17th, 1876. M.D.

ATMOSPHERIC GERMS.

PROFESSOR TYNDALL, in his lecture on the "Optical Department of the Atmosphere with reference to the Phenomena of Putrefaction and Infection," delivered at the Royal Institution on the 14th inst., gave the results of some important experiments he had made bearing on the question of spontaneous generation. The ascertained fact that air kept at rest in an enclosed vessel will deposit all its motes and become pure, led Dr. Tyndall to the conclusion that the germ-spreading and light-scattering power of the atmosphere are closely associated. The fact was also utilised by him in the conduct of his experiments with the view of determining whether the presence of germs was essential to the production of life in various infusions. The conclusion derived by the professor from the results of these experiments—which were carried out by means of air-tight tubes—was unfavourable to the theory of spontaneous generation.

Mr. Lloyd Owen.—The blocks are safe.

THE BOMBAY MEDICAL RETIRING FUND AND SUPERANNUATION.

To the Editor of THE LANCET.

SIR,—The block that now exists to promotion in the Bombay medical service has placed some of the seniors in a very perplexing position with regard to retirement, an explanation of which you may perhaps consider a fitting subject for notice and comment in your journal.

The average age on entering the service being twenty-four, most of the seniors will be fifty-five years old after thirty-one years' service, varying only by weeks or months according to the time of year at which they first joined. Having had no chance of promotion up to the period just stated, such of them as could produce the required certificate of inability to serve further in India would come under the operation of the rule granting enhanced pension at the age specified, the seniors having the prior claim to it, although they might at the same time be the juniors in the service. Those who may have joined later in life would be further favoured, and no one would grudge them the advantages of a rule, the terms of which, as it stands by itself, are sufficiently fair for its purposes. It is only when its application is obstructed by a regulation of the Medical Retiring Fund that something like injustice appears, and gives occasion for complaint and remonstrance. The annuities of the Fund being allotted on the 1st of January, retirement is enforced within three months, and thus it happens that a surgeon-major of thirty-one years' standing must, if he is not fifty-five years of age by the 31st of March, either sacrifice the extra pension, however close he may be to it, or give up his annuity for the year at least, if not longer. By combining the operation of the two rules, a trap in fact is formed, through which only those of the same year can pass scatheless, whose fifty-fifth birthday happens to fall within the three months' portal. This result surely calls for remedy, the more so as the Fund rules, far from being immoveable, as they are now made, were always peculiarly sensitive to changes in those of furlough and pension, while both were brought to work together as harmoniously as possible in the interests of its members. It would be tedious to enumerate the losses entailed by long-deferred promotion, but a comparison between the position of men of thirty-one years' service in Bengal and those of the minor Presidencies would convey a fair idea of them; and if the extra pension of £380 they will shortly earn is but a fit reward for their services, the difference between any ordinary pension and the next higher one must be a very inadequate recompense for the heavy discouragements that have pressed upon their contemporaries in Madras and Bombay.

Were Government really in earnest in providing the means of compensation for the losses here shown to be owing to long-delayed promotion, it would be easy to devise an effective measure for the purpose, and advantage would not be taken of a conflicting Fund rule to deprive those suffering from it of the provision already made. I am, Sir, yours truly,

January, 1876. NEMO.

F.R.C.P., (Dublin.)—A very good description of the anatomy and physiology of the liver will be found in Ludwig's *Arbeiten* for 1875. The article is from the pen of Mon. G. Asp, and a short *résumé* of it was given in our number of the 9th of October last.

Omega.—Yes; but it is a certificate of qualification in Midwifery, not a diploma.

FEMORAL HERNIA IN A FEMALE OCTOGENARIAN.

To the Editor of THE LANCET.

SIR,—The following brief notes of a case presenting some features of not very frequent occurrence may prove interesting.

Mrs. B——, aged eighty, the subject of incarcerated femoral hernia of left side. Symptoms of strangulation set in Dec. 4th, 1875. On Dec. 9th I found her almost pulseless, and, in fact, *in articulo mortis*, when I at once operated, chloroform having been first of all administered, in all of which I was ably assisted by Mr. Bates. I need scarcely say that the taxis had been tried, but failed. The hernia consisted of two distinct portions of bowel (which we had previously diagnosed in some measure): one large intestine (a rare occurrence I believe), not strangulated, but pale, flaccid, and empty; the other, small intestine, tightly strangulated, tense, and of a dark chesnut colour. After division of Gimbernat's ligament, both portions were returned, and the wound sewn up, after which the vomiting, previously stercoraceous, at once ceased. The bowels did not act until the tenth day after the operation, when they responded freely to the third dose of a mild aperient. The wound is now healed, and the recovery of the octogenarian is complete. I am, Sir, your obedient servant,

Worcester, Dec. 31st, 1875. WM. WOODWARD, M.D.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

To the Editor of THE LANCET.

SIR,—Would you allow me to make known to the members of the Association through your columns that, in consequence of the great addition to our ranks in response to the appeal of Dr. Lush, M.P., our President, I am unable to forward the receipts by return of post, but will do so as soon afterwards as possible. Yours truly,

Jan. 20th, 1876. J. WICKHAM BARNES, Hon. Sec.

TAPPING OF THE PERICARDIUM.

M. HENRI ROGER has brought before the Academy of Medicine of Paris an able report upon a case of this kind, sent to the Academy by M. Chairon. M. Roger first stated that he had had occasion to perform this operation upon three children affected in the same manner as M. Chairon's patient. The latter was a young artilleryman, who had gone through the war of 1870, and was admitted into the Convalescent Hospital of Vésinet, near Paris, in July, 1872. He had been ill about seven weeks, had still diarrhœa, had coughed a good deal, and was looked upon as suffering more from tuberculosis than from any cardiac affection. A pleuritic effusion of the left side was soon so palpable that tapping of the pleura by Dieulafoy's instrument was resorted to. This brought away about fifty ounces of serum. No improvement followed, and M. Chairon decided upon tapping the pericardium. This was done with the same apparatus, and brought away two pints of reddish serum. The patient was considerably relieved; but the cavities soon refilled, and death occurred seven weeks after the last operation. The lungs were studded with tubercles, the pleura contained about a quart of fluid, and the pericardium was enormously distended, and occupied by about two pints of pus. False membranes were very numerous, and almost one-third of an inch thick. It was shown that the operation had been well performed, but that it could be only of a palliative nature. M. Roger considers that pericardial effusion must not be viewed like pleuritic dropsy; for in the former phenomenon we should consider two points—the size of the effusion, and the urgency of the symptoms.

HYGIENE OF SCHOOLS.

To the Editor of THE LANCET.

SIR,—Not being a medical man, I address you with some diffidence; but I have been strongly urged to write to you by a professional man of eminence, to whom I casually mentioned some facts which had come under my observation, and the opinions and practical measures which I based upon them.

I have been head master of a boarding school for nearly fourteen years. For the last nine years, during which our numbers have gradually increased from forty to eighty boys of all ages, from ten to nineteen, we have enjoyed an absolute immunity from epidemics of scarlet fever and measles. During my first five years here, when the numbers of the school were much smaller, we had several epidemics of measles, and during my predecessor's term of office, when the numbers never rose above fifty-four, there were frequent epidemics of both scarlet fever and measles. The house and grounds are surrounded by houses, and close to a town of some size; there are several houses between us and our playfield, and, as far as I can make out, we are almost the only house in the neighbourhood in which there are boys which has not been visited by scarlet fever within the nine years of which I speak. The boys of the school have practically unlimited access to the town and country about, under no superintendence. When I became head master I was fully impressed with the importance of physical education, and with the general truths which I have since found so clearly stated in Mr. Herbert Spencer's admirable and suggestive essay on this subject. I at once made drill and gymnastics regular school classes, and measures were gradually introduced for the promotion of health and vigour. I may here say that I do not care for establishing any reform in a school without carrying its public opinion along with me. Boys are extremely conservative if you attack their habits and opinions by main force and dogmatic assertion; but their prejudices are less strongly rooted than those of the majority of their elders if they are calmly and persistently combated by facts and arguments, and if you aim not at mechanical obedience, but at making them zealous converts and propagandists of any practical reform. The measures of which I speak, and which, with your leave, I shall presently detail, were not at first introduced with the especial view of preventing epidemic disorders, but it has been for several years my growing belief that they are effectual in doing this. If the germ theory is true, the spread of contagious disorders may be resisted in three ways:—

1st. By measures of isolation, quarantine, &c., tending to prevent the introduction of the poison germs.

2nd. By measures of drainage, ventilation, and disinfecting, tending to reduce to a minimum the reproductive powers of those germs.

3rd. By measures which tend to make the individual less susceptible to the action of those germs.

The public attention appears to me to be fully aroused on the first of these heads, partially only on the second, and scarcely at all on the third.

On the first head we are probably less particular than some schools about the return of boys who have been exposed to infection. I believe that exaggerated importance has been attached to measures of this nature, and that, do what you will, you cannot prevent the *introduction* of the poison germs, but that you should act as if they were always present.

On the second head, we have all of us much to learn on the subject of drains; but so far from being better than our neighbours, I believe we have been worse. There is very little fall from this to the sea, and we have been obliged to have recourse to cesspools, which lie under a small grass playground near the house. Heavy rains have sometimes made them overflow, and till some recent improvements were made, including the introduction of earth-closets, I believe that it has only been careful attention to things even more important than drains which has preserved us from serious epidemics. One of those things comes under the second head, and that is ventilation.

I believe that the poison germs increase and multiply in exhalations from the human body, and that they can very seldom gain force enough to produce fever in a healthy subject, except in an atmosphere laden with such exhalations. Our rules, vigorously carried out, for preventing the atmosphere of rooms from being so laden, and for rapidly getting rid of such exhalations as there must be in the best-aired inhabited rooms, are briefly as follows. There is nothing very new about any one of them. I should be glad to hear that they were *all* persistently carried out in every school and house in the kingdom.

1. The occupants of every bedroom must, before leaving the room in the morning, open the windows as wide as possible, and throw the bedclothes off the bed, hanging up, not *folding up*, the night-shirts. I put this rule in the forefront as the key-stone of a good sanitary system. It is essential to the public safety of a school, and its necessity ought to be a leading article in the creed of a well-trained boy.

2. The windows of every bedroom must, except in case of storm, be kept open at night, more or less according to the weather; each window also has a piece of wood tightly inserted beneath the lower sash, so that there is a small open space between the sashes, through which a small current of air can rise into the room without causing any draught. But boys who play games, and go about the place bareheaded, as all boys should do, except under a hot sun, soon have their heads quite hardened against such colds as might be caught from open windows.

3. No school-room must be occupied for more than an hour and a quarter at the most at a time (with rare exceptions for examinations). It must then be emptied and aired for five minutes. During school hours one window at least must be partially open. No school-room must be tenanted during certain parts of the play hours.

The use of carbolic soap, which has lately become universal here, also, I believe, tends to render the skin exhalations unfit for the propagation of the poison germs. I have also been told that oil rubbing has a similar effect. I do not know whether this is the case. Oil rubbing has, of course, a well-proved effect in preventing consumption, and no rearer of young human animals has mastered even the rudiments of his subject who does not cause it to be abundantly used by young, growing boys. The virtues of the olive, often neglected in modern times, are well known to our young athletes, and contribute much to the athletic prowess of the school. If oil also is unfavourable to the germs of eruptive fever, it will add one to those numerous virtues which made the Athenians regard the olive as a more valuable gift to man than the horse.

The third set of measures—viz., those which tend to diminish the susceptibility of the individual—are at least co-ordinate in importance with the second. Daily open air exercise in all weathers, in suitable costume, is, I am persuaded, the chief factor in diminishing this susceptibility. It is compulsory here, if that can be called compulsory which becomes ardently believed in by every upper boy in the place, and which is only distasteful to coddled darlings or devourers of printed trash. It has been introduced into three other schools, which have also since they introduced it been entirely free from epidemics. There are also matters relating to bathing, diet, and clothing which come under this set of measures.

I am, Sir, yours &c.,

January 10th, 1876. HEAD MASTER.

Mr. J. M. Pearse.—We do not regard the fee as excessive for a night visit. The letter might have been couched in more gracious terms.

Mr. W. A. Pearson.—Certainly, the preliminary examination in Arts would have to be passed first.

THE FORAGE CLAUSE (ARMY CIRCULAR).

To the Editor of THE LANCET.

SIR,—I herewith forward a copy of the last circular regarding forage allowance—*vide* clause 163.

Owing to the increased prices of horses and forage, we were in hopes that the forage allowance would have been increased. We wanted bread, and we have got a stone.

The allowance to mounted officers consists of 1s. 10d. per diem, the use of a stable, and a soldier to act as groom. The officer must, if permanently mounted, buy a charger, clothing, saddlery, stable gear and forage, clothe the groom, and pay him 12s. per mensem, or he will not stay. How can this be done for £33 9s. 2d. per annum?

With regard to those temporarily mounted—say for those who have to go through the summer drills at Aldershot in July next,—can you tell how or where they can hire horses &c. for £2 16s. 10d.?

It was formerly sufficient to have a horse available, as, for instance, I have the use of a horse which stands in my stable, and is looked after by my servant; but I cannot even get forage for it now, as it is not *bond fide* my own property.

The question certainly affects the whole of the officers of the army, and the medical officers especially, who, owing to frequent moves, or looking on a horse under the circumstances as a "white elephant," will in many instances forfeit the allowance rather than submit to a greater loss.

Yours truly,

Jan. 12th, 1876. A. M. D.

*** Our correspondent will see by a reference to previous numbers of THE LANCET that we have already noticed this subject.—ED. L.

THE LATE DR. WEBSTER.

To the Editor of THE LANCET.

SIR,—Some of the friends of the late Dr. George Webster propose to erect a memorial of him in Dulwich, where he lived for sixty years, and where many have cause to regret him for other than professional services. It is intended that the memorial should take the form of a drinking-fountain in a conspicuous spot in the village—a method of commemoration which was approved and desired by the venerable doctor in his lifetime.

It occurs to me that many members of the medical profession would desire to contribute to perpetuate the memory of one who was for many years one of the chief promoters of the British Medical Association, and laboured in many ways for the benefit of the profession. I therefore ask you to permit me to mention in your columns that a Committee has been formed with the object which I have described, and that subscriptions are received by the treasurer, Charles W. C. Hutton, Esq., J.P., Belair, Dulwich, S.E.

I am, Sir, your obedient servant,

S. CHEETHAM, Chaplain of Dulwich College,

Dulwich, Jan. 15th, 1876. Chairman of Sub-committee.

PATHOLOGY OF THE ACUTE SPECIFIC FEVERS.

To the Editor of THE LANCET.

SIR,—In the course of my professional reading I remember to have met somewhere with the following remarkable statements with regard to the pathology of the acute specific fevers, and am anxious to refer to them. The one is, that "they may be only various manifestations of but one and the same poison"; the other, that "there is a growing tendency to the belief that they owe their pyrexiæ to certain local phlegmasiæ." Could you, Sir, or any of your readers kindly give me the authority of either one or both of these statements, I should be glad.

I am, Sir, yours faithfully,

Liverpool, Jan. 1876. J. B. STOCKER, M.B. Lond.

MEDICAL TESTIMONIALS.

THE practice of giving medical testimonials in favour of articles of commerce is alarmingly on the increase, and it is time to protest against this absurd and mischievous custom. We are not ignorant of the wiles by which the testimonials vaunted in advertisements are obtained from busy practitioners; but the arts of tradesmen procuring these hasty and wholly untrustworthy certificates and testimonials do not excuse the careless wrong-doing of those who give them. Sometimes they are private letters, not intended for publication, the permission to print being given, *if at all*, after the circumstances have been forgotten. A very common device is to send a medical man some of the article it is designed to puff. He incautiously acknowledges receipt with a few graceful remarks, the product of ordinary civility. Straightway his name appears in print. Medical men should be on their guard against their own kindly impulses, and the artifices of clever commercial speculators.

Mr. T. E. Williams, (Talgarth.)—We have no knowledge of the individual named.

SUICIDAL WOUNDS BY LUNATICS.

To the Editor of THE LANCET.

SIR,—In judging of the extent and character of suicidal wounds, it should always be borne in mind that suicidal wounds inflicted by maniacs are often of a very extensive character, so much so, in fact, that had the suicide not been known to be a lunatic the nature and extent of the wound might have been held presumptive evidence of homicide. The manner also in which the suicide carries out his purpose is often very determined, as the following case will show.

T. G——, aged sixty-four, a male patient, suffering from melancholia with suicidal tendency, a short time ago eluded the vigilance of his attendants, and having entered an out-house where agricultural implements are kept, he saw an ordinary mowing scythe. He took this scythe, and placed the heel end of it on a log of wood about a foot high, while the apex rested on the floor; he thus had the blade of the scythe in the position of an inclined plane. He then got on his hands and knees, and deliberately drew his throat along the edge of the scythe. I saw the body seven or eight minutes after the act had been committed, when life was quite extinct. I examined the wound carefully.

The suicide in this instance managed to cut his throat exactly between the larynx and the os hyoides. The incision was of a clean character, six and a quarter inches in length, extending from left to right, and very slightly from above downwards. The superficial muscles of the neck and the thyro-hyoid membrane were divided. Both superior or ascending cornua of the thyroid cartilage, although almost quite ossified, were entirely cut through. The pharynx was also completely divided, so that a small portion of the left edge of the anterior vertebral ligament was visible. The left carotid artery, jugular vein, and pneumogastric nerve were completely divided; the great vessels on the right side were uninjured. The sterno-mastoid muscle on each side was partially divided, the left about two-thirds through, and the right about one-third through.

I should say in this case that death must have been almost instantaneous, owing to the importance of the structures divided; and the fact that the superior cornua of the thyroid cartilage, though quite hard and almost entirely ossified owing to the age of the patient, were cut through, shows that there must have been great determination of purpose, and that very considerable force must have been used.

Yours respectfully,
J. G. THORNLEY, M.D.,
Leicester County Asylum, Jan. 1876. Assistant Medical Officer.

MEASLES: HOW TO MINIMISE DANGER OF INFECTION.

To the Editor of THE LANCET.

SIR,—The following case, which bears in a marked manner on the oft-recurring question of the infectiousness of measles, may be of practical interest to some of your readers.

On Tuesday, the 21st of December last, a young gentleman felt a sudden attack of headache, which he compared in violence to a blow. During that day and the three following he continued to go about and attend to his usual occupations, but his family remarked that he was not looking well. On Christmas day, the fourth from the date of the above attack, he went out for a long walk, returned home, and dined with a small party of friends. They all observed that his face looked unusually red—"rashy," as one gentleman expressed it,—but he sat with his guests till eleven o'clock, and took part in some games that were played. When going to bed he had a rigor, and his father, seeing a vivid rash out over him, dreaded it might be scarlatina.

I was sent for the next morning, found my patient in bed, with his features much swollen, eyes injected and painful, and the face and body covered with the characteristic eruption of measles. His temperature was 103°, pulse over 100 in the minute, and there was some troublesome cough. The question then arose of separating certain other members of the family who had not previously been affected by the disease. These consisted of two young ladies, the patient's sisters, and a little girl of three years old, a cousin, who was staying in the house. They slept on the floor immediately above his bedroom, had been regularly in his society up to the previous night, and he had played familiarly with the child even when the rash was visible upon his face. Notwithstanding these circumstances, I advised the young ladies to be sent to one friend's house, and the little girl to another's, and that communication should cease between them and the affected household. They did not see the patient again, and all three left the house on Sunday, the 26th, and have remained away from it since.

On Tuesday, the 28th, the patient was visited by another physician, who fully agreed in the diagnosis, but regarded the precautions taken with respect to the other members of the family as likely to be of no avail.

I am happy to say, however, that up to the present time they continue perfectly well; and as sixteen days have now elapsed since they quitted the infected locality, there is no probability that the disease will occur. My object in reporting the case is to show that separation may be occasionally effectual in warding off an attack of measles, even where the degree of previous exposure, both during the stages of primary fever and even of eruption, has been considerable.

Yours faithfully,
Sussex-gardens, Hyde-park, Jan. 11th, 1876. T. FITZPATRICK.

Paris.—Persons having studied medicine out of France may present themselves before the Faculty of Paris for the degree of M.D., provided they can prove that they possess certificates of preliminary education equal to the French degree of Bachelor of Letters. No residence or classes are necessary; but the five final examinations which French students undergo after four years' attendance must be submitted to by the foreign student. These five examinations bear upon all the subjects of medical science, and are passed on consecutive days. The fees are within £20. The classes or lectures are free, but the consent of the professor must be obtained. As stated above, the subjects of the five examinations comprise the whole extent of medical knowledge and practice, and are therefore about on a par with the examinations at the University of London. We are not aware of any extra subjects. The length of the period of study, for those who go through the whole curriculum, is four years. But pupils who have studied out of France may, as already stated, pass, without classes, the five final examinations to which ordinary students must submit after the usual annual examinations. The writing and defending of a thesis is also required.

ARMY MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—In looking over the January Army List, at page 800, I find the following:—

G. O. 3.—Regimental Bands.

(a) All non-combatant officers (including medical officers attached to regiments) will be liable on appointment, if above the rank of subaltern, or on attaining the relative rank of captain, to pay a contribution of twenty days' pay.

(b) All officers above the rank of subaltern, except quartermasters and ridingmasters, will pay an annual subscription, not exceeding twelve days' pay, to be made in quarterly payments in advance.

Now, Sir, I do think it most unfair that medical officers who have ceased to *belong* to a regiment should be called upon to contribute twenty days' pay to the band fund on being attached only for five years at the utmost; and it also appears to me inequitable to compel a surgeon of fifteen years' service to pay as much as the lieut.-colonel commanding, their nominal pay being nearly the same. A surgeon-major would have to pay much more than his colonel.

I think that the attention of aspiring candidates for the army medical service should be drawn to this, and you would be doing them a favour by inserting it in your journal.

I am, Sir, yours faithfully,
Jan. 13th, 1876. A RETIRED MEDICAL OFFICER.

VIVISECTIONS.

WE commend the following article from the *Bulletin de la Société Protectrice des Animaux* to the attention of those who raise an outcry against experiments called vivisections, and which are almost always carried out under chloroform:—

"The coming generations will hardly believe that at a period when social progress is so evident we are actual barbarians as regards our relations to the lower animals. Let anyone go and observe what takes place in our markets. There he will see what an enormous and unmerited mass of pain is thrust upon various species of animals, through mere savage recklessness, without any motive or interest—nay, against the interest of the evil-doers themselves. I will just mention one example out of dozens. The kids and lambs brought to market are treated with wanton cruelty. Their four legs are tied with a cord, and they are hung by the knot either on a hook or at the arm of the dealer. The legs often break, or at least get terribly swollen; the poor animals whine pitifully, and try to get loose. They thus remain, more dead than alive, until the butcher throws them into his cart, and piles them one upon the other like paving-stones, so that the lowermost lambs are often suffocated. The fowl dealer generally takes a week to collect the birds for the market. During his journey the hungry fowls pick out the eyes of the animals within their reach. The ducks and little kids are the first victims of this horrible torture, and at the journey's end it is rare to find a duck or a kid with eyes. When the baskets or bags which contain the animals reach the market, many of the poor creatures are found to have died of hunger, thirst, or asphyxia. Among the survivors many had been fasting for several days. The animals, heaped and huddled together, form a living mass, in which none but the sensation of pain is left. It is useless to try to reason with the men; they are simply obstinate brutes, and nothing but heavy fines can conquer them. At the time of sale the fowls are coarsely removed from the bags, and, if not purchased, they are still more rudely cast back into the torturing receptacle. When this series of ill-treatment is considered, the heart sickens, and pity is felt for the poor creatures. These odious abuses should be protested against; they are a disgrace to our nation, and can be visited by a law enacted July 2nd, 1850, known by the name of Grammont's Act."

BLOODLETTING.

To the Editor of THE LANCET.

SIR,—In a letter in your last week's number I was struck by the remark (coming from a medical man) that when ill he was treated by a practitioner who had "recourse to that sheet-anchor of bygone ignorance, the lancet." I am one of those who during my pupil days, in the years 1847, '48, and '49, bled I should say at least 200 persons, many of whom came to the surgery to be "blooded" on a Sunday morning—agricultural labourers,—who went to their work the following day all the better for the bleeding. I have during the last twenty years had some experience in general practice, and am convinced that bleeding, judiciously practised, is one of the most efficacious and beneficial remedies we possess. I have seen several cases of cut-throat and alarming hæmorrhage, and have been struck with the improvement in the health of these persons after the wounds healed. When one considers the sometimes severe hæmorrhage during operations, the hæmorrhage before and after labour, and the rapid recoveries which often take place, I cannot but think the prejudice against bleeding is a mistaken one, and I am inclined to think your correspondent's system must have been weakened by the shock he received from the leaping over the bar rather than from the use of the lancet.

I am, Sir, your obedient servant,
Buckingham, Jan. 17th, 1876. ROBERT DE'ATH.

THE GUARDIANS OF ISLINGTON AND THEIR MIDWIFE.

To the Editor of THE LANCET.

SIR,—Enclosed is an abstract from a local paper, giving an account of the discussion at a meeting of the Islington Board of Guardians in the matter of Mrs. Croft, the midwife. At an inquest held on an illegitimate child who was in the care of this woman, two medical men testified that suffocation was the cause of death. I send you this abstract in the hope that perhaps you may be able to explain the apparently reprehensible conduct of the guardians in only reprimanding the woman.

It would also seem, if the matter is allowed to rest here, as if coroners' inquests were of very little value. For what end can they serve if, when a verdict of "Death from suffocation" is returned, no steps are taken to find out how, or by whom, this means of killing was employed, and whether intentionally or accidentally? I remain, Sir, yours &c.,

Holloway-road, Jan. 15th, 1876. W. HENRY KESTEVEN.

*** It is very unsatisfactory to find that the Islington guardians, having had this case under consideration, have contented themselves with reprimanding Mrs. Croft. The public of Islington will not feel gratified at the continuance of a connexion with a person who made such admissions as Mrs. Croft made.—ED. L.

A QUERY.

To the Editor of THE LANCET.

SIR,—Can any of your correspondents inform me if it is possible to render a building sound-proof which is situated near a railway station and close to the line, and thereby make it suitable for a cottage hospital? Would the result be effected by building an outer wall—say of one brick in thickness, leaving an intervening space,—an outer roof, and double windows and doors? Information on the subject will be esteemed a great favour.

Yours truly,

January, 1876. ENQUIRER.

ERRATA.—In Dr. Clifford Allbutt's paper on the Pulse, published in our last, page 88, second column, line 16, for "sickness," read *sickness*; about the middle of the same column, for "Mürren, Pontresina," read *Mürren, Pontresina*; and in the last line but one of the article, for "months," read *weeks*.

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. H. Smith, London; Dr. Brown-Séquard, Paris; Mr. Holmes, London; Dr. Sedgwick, London; Dr. L. Robertson, London; Mr. Lloyd Owen, Birmingham; Mr. Williams, Brecon; Mr. Armstrong, Newcastle-on-Tyne; Dr. Fussell, Brighton; Mr. Morris; Mr. Grose, Melksham; Dr. Stephen, Brighton; Dr. Williams, London; Mr. Hitchcock, Lewisham; Mr. Sullivan, Cork; Mr. Buller, South Brent; Dr. Lister, Newton-le-Willows; Mr. Sanders, Wandsworth; Mr. Braden, Lowes; Mr. Saunders, Matley; Mr. Vachell, Cardiff; Mr. Maclean, London; Mr. Coppinger, Dublin; Mr. Nairne, Glasgow; Mr. Helt, Bayswater; Dr. A. Meadows, London; Dr. Wilson, Leamington; Mr. Morice, Glasgow; Mr. Compton, Hampstead; Mr. Love, Wolverhampton; Mr. Palmer, Welburn; Dr. Nicholls, Chelmsford; Dr. Thornley, Leicester; Mr. G. B. Childs, London; Mr. Gay, London; Mr. Thring, Uppingham; Mr. Cheetham, Dulwich; Mr. Ingpen, London; Dr. Laurie, London; Mr. Kesteven, London; Mrs. Needham, Belper; Mr. Irvine, Carlisle; Dr. Stuart, Brighton; Messrs. Barraud and Jerrard, London; Mr. Crew, London; Dr. Wood, Maidstone; Dr. Daly, Dalston; Mr. Bell, London; Mr. A. Cox, Brighton; Mr. Patchett, Shaw; Mr. Fox, Bristol; Mr. Shaw, Rotherhithe; Mr. Blackett, London; Mr. Wilson, Newcastle; Mr. J. W. Barnes, London; Dr. Gale, Manchester; Dr. Dowse, Highgate; Mr. Ward, London; Mr. Pearson, London; Dr. Macdonald, Bilston; Dr. Steele, London; Mr. Haviland, Northampton; Dr. Herman, Cape Town; Dr. Stevens, Barnstaple; Mr. Davison, Newburn; Dr. Flinn, Grinshill; Dr. Martin, Inkberrow; Mr. G. B. Sweeting, King's Lynn; Mr. O'Brien, Leamington; Messrs. Ferris and Co., Bristol; Mr. Bedford, Amersham; Mr. R. De'Ath, Buckingham: Mr. Harris, Truro; Dr. Parker, Springfield, U.S.A.; Dr. Mackey, Edgbaston; Dr. Kendall, Kidsgrove; Mr. Mott, Cardigan; Dr. Caskie, Auston; The Director-General of the Medical Department of the Navy; An Old Subscriber; Paris; Enquirer; A Senior Student of Guy's; A Struggling General Practitioner; M.D.; W. R. H.; A Bird Caught with Chaff; Enquirens; J. L.; M.D. Lond.; J. A.; L.R.C.P. Lond.; Prospero; The Secretary of the Royal Aquarium; F. M.; M.R.C.S., Birmingham; Omega; M.B. Edin.; S. S.; F. B.; &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Greenwood, Liverpool; Messrs. Oliver and Boyd, Edinburgh; Mr. Dobb, Liverpool; Dr. Hope, York, Western Australia; Mr. Van, Cranborne; Mr. Maslen, Oystermouth; Mr. Welch, Christchurch; Mr. Cooper, Cromer; Mr. Gent, Brill; Mr. Sutcliffe, Torrington; Messrs. Burgess and Co., London; Dr. Parker, Wootton Bassett; Dr. Townsend, Miltown; Mr. Eschwege, London; Dr. Dickson, Buxton; Dr. Gramshaw, Stillington; Dr. Dickson, Corbar Hill; Mr. Reid, London; Dr. Edwards, London; Mr. Wainwright, Barnsley; Mr. Moore, London; Mr. Lyne, Newport; Mr. Stuart, Wigan; Dr. Yate, Woodbridge; Visus; Surgeon; Delta; Medicus; Junius; E. S.; Eric; J. B. C.; Medicus, Aylesbury; Thetis; M. S., Manchester; O. P.; J. W. J., Newport; W. S. C.; T. H., Sheffield; H. D., Leicester; B. W., London; Vendor, Newcastle; E. P., London; Alpha, Blackburn; M.R.C.S., Kensington.

Newcastle Chronicle, Leamington Spa Courier, Manchester Guardian, Local Government Chronicle, Welshman, Saunders's News-Letter, Staffordshire Advertiser, Liverpool Post, Surrey Advertiser, Western Morning News, Cork Constitution, East London Observer, Metropolitan, and *West London Observer* have been received.

METEOROLOGICAL READINGS

(Taken by Steward's Instruments.)

THE LANCET OFFICE, JAN. 20TH, 1876.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks at 8 A.M.
Jan. 14	30·48	N.E.	34	36	...	37	31	...	Cloudy
„ 15	30·67	E.	33	35	...	39	33	...	Overcast
„ 16	30·69	W.	...	28	...	39	25	...	Cloudy
„ 17	30·39	N.W.	38	39	...	48	30	...	Foggy
„ 18	30·08	W.	41	48	...	51	38	...	Overcast
„ 19	30·28	W.	40	44	...	49	40	...	Overcast
„ 20	29·91	W.	44	46	...	48	42	...	Fine

Medical Diary for the ensuing Week.

Monday, Jan. 24.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8½ P.M. Mr. Wm. Adams, "On a Case of Anchylosis of both Elbow-joints successfully treated by Subcutaneous Section of the Humerus of one, and Forcible Extension of the other."—Dr. Farquharson, "On Officinal Dosage, with some remarks on Homœopathic Tinctures."—Dr. Crisp: "A remarkable Case of Skin Disease" (living specimen).

Tuesday, Jan. 25.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8½ P.M. Dr. Althaus, "On the Prevalence and Fatality of Nervous Diseases."

Wednesday, Jan. 26.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, Jan. 27.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Jan. 28.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
QUEKETT MICROSCOPICAL CLUB.—8 P.M. Mr. A. Hammond, "On a Comparison between the Metamorphoses of the Crane-fly and the Blow-fly."
CLINICAL SOCIETY OF LONDON.—8½ P.M. Dr. Bell Taylor, "On a method of Operating for Cataract by which the Pupil is Preserved"; "On a method of treating obstinate Cases of Symblepharon by Replacing the Ocular Conjunctiva by Skin."—Mr. C. Heath, "On a Case of Gunshot Wound of the Arm, dividing the Brachial Artery and the Median Nerve."—Dr. Broadbent, "On a Case of Embolism of the Right Posterior Cerebral Artery, with Yellow Softening of the Occipital Lobe of the Hemisphere; Death from Endocarditis."—Mr. Pugin Thornton, "On a Case of Œdema of the Larynx."

Saturday, Jan. 29.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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